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ABSTRACT

This document presents 13 keynote addresses and major papers presented at the 1997 and 1998 conferences of the Pennsylvania Association of Developmental Educators. The papers are: (1) "Developmental Education: History of Implications" (Hunter Boylan, 1997 keynote speaker); (2) "Learning and Teaching in the 21st Century: Seven Habits of Highly Effective Developmental Educators" (David Arendale, 1998 keynote speaker); (3) "The Transition from High School to College: Constructing a Freshman Seminar to Improve Academic Performance and Student Retention" (Ulysses J. Connor and George M. Colton); (4) "Moving Forward: A Transition Program for Students with Disabilities" (Brenda Shrum Kauffman and Barbara Grandia); (5) "Learning, Literacy, Writing Labs: Tutors Empowering Students" (James Boswell, Jr. and Catherine Dankosky); (6) "Learning Styles: The Road to Metacognition" (Mary Catherine Kiliany); (7) "Supplemental Instruction: Variations on the Basic Model" (David R. Arendale and Ann McLaren); (8) "Math Supplemental Instruction at Indiana University of Pennsylvania: A Short and Sweet First Report" (Paul Hrabovsky); (9) "Correlating the LASSI with Developmental Students' Academic Performance" (Sally Lipsky); (10) "Designing a Peer Tutor Training Program" (Ann McLaren); (11) "Helping Students Conquer Math Anxiety" (Rosemarie Gaetano); (12) "Want To Think Like Your Profs (When They're Writing Your Tests)?" (Carolyn Wilkie); and (13) "Simplicity in Writing" (Robert Hellstrom). (Individual papers contain references.) (DB)

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Selected Proceedings

FROM THE

16th (1997) & *17th* (1998)
ANNUAL CONFERENCES

OF THE

PENNSYLVANIA ASSOCIATION
OF DEVELOPMENTAL EDUCATORS
(PADE)

Sally Lipsky, Editor
March 1999

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FORWARD

Sally Lipsky, Editor

The 16th annual conference of the PA Association of Developmental Educators (PADE) was held at Hidden Valley Resort, April 10-11, 1997. The conference theme was "Developmental Education: Impact and Progress." The Keynote Speaker was Hunter Boylan, Director of the National Center for Developmental Education and Professor of Higher Education, Appalachian State University.

The 17th annual conference was held at The Hotel Hershey, March 26-27, 1998. The conference theme was "Developmental Education: A Sweet Success." The Keynote Speaker was David Arendale, Director of the National Dissemination Project for Supplemental Instruction, University of Missouri-Kansas City.

At the conferences educators from across Pennsylvania gathered to lead workshops, summarize research, share educational strategies, and discuss selected issues relevant to the field of developmental education. All presenters were invited to submit articles about their presentations for publication consideration in this combined conference proceedings. Articles were blindly reviewed by peers, members of PADE's "Research, Monograph, and Papers" Committee. As a result of this review process, eleven articles (plus the two Keynote Addresses) were chosen for publication in this volume of proceedings.

This publication begins with the texts from the Keynote Addresses. *Boylan* provides an important historical context with which to view the present state of developmental education. *Arendale* links developmental education from present to future, describing megatrends and principles by which we can become effective educational leaders. Both addresses provide informative, challenging, and inspiring messages for developmental educators. The articles by presenters explain programs (*Connor & Colton; Kauffman & Grandia; Boswell & Dankosky; Kiliany; Arendale & McLaren; Hrabovsky*), summarize research and discussion forums (*Lipsky; McLaren*), or describe specific educational practices (*Gaetano; Wilkie; Hellstrom*).

The following members of PADE's "Research, Monograph, and Papers" Committee reviewed manuscripts for this publication:

Regina Baron, Luzerne County Community College
Virgie Bryan, Bloomsburg University of PA
John Foreman, Shippensburg University of PA
Paul Hrabovsky, Indiana University of PA
Carolyn Wilkie, Indiana University of PA

Finally, many thanks to the Community College of Allegheny County for printing these proceedings.

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DEVELOPMENTAL EDUCATION: HISTORY OF IMPLICATIONS

Hunter Boylan
Keynote Address—PADE Conference April 1997

Thank you for the opportunity to be back here in Pennsylvania again. This is my second appearance as a speaker at a PADE Conference...and the fact that you invited me back suggests that I either did a fairly good job the last time or that everyone who heard my speech that day has moved on to better paying jobs. I hope it's one of the two.

Speaking of better paying jobs, I'm always amazed at how hard we work in this field given how little we're paid. I heard the story that a developmental educator was one of three people to win the Publisher's Clearinghouse last year. Of course they invited her and the other winners to New York and interviewed all of them. They asked the first winner what he intended to do with the money. He replied that he'd always enjoyed traveling and he figured he'd just travel around the world until the money ran out. The second winner was asked the same question and she said that she and her husband planned to buy a yacht and sail it around the world until the money ran out. When the developmental educator's turn came, she said that she'd always enjoyed teaching developmental students and figured she'd just go ahead and do it until the money ran out.

Carolyn Wilkie, who I might add, just won a NADE award for her research efforts, asked me to talk today about a subject that I enjoy very much -- the history of developmental education. I think she figured that I'd lived through most of it. Well, she's wrong. I'm not that old.

I've divided my comments into three parts today. The first part traces the history of developmental education that's already in the books. It's verifiable, it's part of the public record, and scholars generally accept it as a reasonable interpretation of our history.

The second part has to do with our history since the 1970's. This part represents my own interpretation of the historical record. I point this out because a good scholar, something which I hope to be when I grow up, always distinguishes between verifiable fact and personal interpretation.

The third part discusses what we need to do now, given where we are in the history of developmental education. That part is a combination of fact and interpretation.

So let me begin at the beginning... as Maria in the "Sound of Music" would say... "a very good place to start."

I trace the historical roots of our field to the year 1849. It was in that year that the University of Wisconsin established the nation's first college preparatory program.

You see, back in the 1800's most students who came to college hadn't been to high school...
mainly because high schools weren't widely available to students in those days. So they applied to college without the benefit of much training. Brubacher and Rudy, the historians of American higher education, estimate that about half the students enrolled in college in the 19th century couldn't read, write, or calculate at a functional level. So a huge number of students failed their courses. The problem with this was that, in those days, colleges didn't have a lot of state or federal support. They survived on student tuition. And, if all their students flunked out, the amount of tuition they survived on declined.

This may come as a surprise but college administrators' concern about retention isn't a recent phenomenon. They began to worry about retention well over a hundred years ago. And they faced the same dilemma then that they face today. They either lowered their standards to allow more students to pass courses, or they did something to help them pass courses.

At the University of Wisconsin they came up with the novel idea of establishing a department where under prepared students would take courses designed to improve their readiness for college level work. This was hailed as a tremendous innovation. In fact, according to the American Council on Education, about 80% of American colleges and universities had started preparatory department by 1889.

One of the things that contributed to this tremendous growth in college preparatory programs was the first Morril Act of 1862. At that time, the Congress of the United States in a rare moment of lucidity, realized that our future as an industrialized nation depended upon the availability of people trained to participate in an industrial study.

So they established land grant colleges to increase access to higher education for those who were called "the industrial classes." These were laborers, immigrants, freeman, and anyone who wasn't middle to upper class.

The availability of land grant colleges made higher education available to a huge number of people by placing a public college in almost every state that hadn't seceded from the union in 1862. But, since the industrial classes were no better prepared for college than their middle and upper class forebearers, the need for college preparatory programs became even greater after the first Morril Act.

Now, I might point out that, just because there was a large body of under prepared students in college in the late 1800's, this didn't mean they were welcome there. In his inaugural address as President of the University of Michigan in 1859, Henry Tappan

referred to the preparatory students on his campus as "raw and undisciplined youth." He also described their presence there as a "palpable absurdity."

The Vasser student newspaper characterized that school's preparatory students as "a vandal hoard of unconventionatlities." And, by the late 1880's, the American Council on Education decried the fact that fewer than 20% of the nation's colleges had, quote, "rid themselves of the embarrassment of preparatory departments."

In fact, in response to this outcry against underprepared students in American Higher Education, the College Entrance Examination Board, the forerunner to the College Board, was established in 1890. Its purpose was to set up a standardized admission test that everyone would have to pass in order to enter college. This initial use of standardized tests in higher education was supposed to eliminate the presence of underprepared students by weeding them out at the front end. I am consoled be the fact that it didn't work any better than it does now.

In 1907, almost two decades after the establishment of the College Entrance Examination, the registrars of Harvard, Princeton, Yale, and Columbia admitted that more than half of the students enrolled in their institutions had failed the examination and had been admitted anyway.

By 1915, the US Commissioner of Education reported that about 80% of the nation's colleges and universities still had college preparatory programs. Scholars of the period suggest that "high schools weren't doing their jobs."

So a major point I'd like to make today about developmental education is that it's definitely not a new phenomenon. We've had it since 1849.

By the early 1900's it was apparent to everyone in higher education that a very substantial number of students lacking basic skills were in our colleges and universities. The solution proposed by William Rainey Harper at the University of Chicago and David Starr Jordan at Stanford was to establish junior colleges. These institutions were originally envisioned as an extension of high schools. Their primary purpose was to take all those students who weren't prepared for college studies and get them out of the universities.

This concept was to lead, eventually, to a uniquely American Solution to the problem... the community college. The expansion of community and junior colleges in this century has been awesome. In 1900 we had 8 community colleges in the United States. By 1926, we had 325. By 1990, we had well over 1,200. American higher education had been pretty well resolved through the junior and community college movement. But between 1945 and 1948, we mustered out over 5,000,000 men and women from the armed forces after World War II. We also provided almost every one of them with veteran's benefits as a result of the Veteran's Adjustment Act of 1944, more commonly known as the "G.I.

Bill." The system that had gotten along rather happily without underprepared students for almost 30 years began to fall apart in the 1950's. It simply wasn't prepared for an estimated 3,000,000 veterans who returned to college... without much academic experience but government tuition checks in their hands. No one wanted to turn away this new source of windfall profits.

Fortunately, this new group of students tended to be highly motivated adults who, having served for years in the military, were people who'd spent months at a time sleeping in fox holes, eating canned SPAM (when they had it), drinking polluted water, dodging artillery and small arms fire, living with lice and mosquitoes as their only roommates, and taking orders from screaming master sergeants. They weren't prone to saying, "the cafeteria food is awful." "I can't study because of the noise." "Your tests are too hard." "Do I really have to read a whole book?" They were used to taking orders and doing what they were told.

And so, although they were underprepared in many ways, they worked hard to overcome their underpreparedness. And they had help. Colleges of education began to offer reading improvement courses for veterans. The government paid for veterans' tutoring. And, By the 1950's, we began to have preparatory activities appearing once more on university campuses.

In spite of this, however, our colleges and universities didn't change a lot until the late 1960's. Then, two things happened. The first was the onslaught of the "Baby Boomers."

Apparently, one of the first items on the agendas of all those folks coming back from WW II was to procreate. So between 1963 and 1968, all the products of this procreation turned 18. And in the mid-60's, colleges and universities were flooded with applications from baby boomers.

American higher education's first response to this dramatic increase in applications was to become more selective. There were so many baby boomers trying to get into colleges that institutions could afford to increase the size of their freshman classes **AND** become more selective.

When I wrote to Miami University in Oxford, Ohio, in 1963, I was told that, unless I was in the top 2% of my high school graduation class, I needn't bother to apply. Well, I was 13th in a class of 290 so I didn't qualify. Fortunately, I'd been on a state champion high school football team so I benefited from an affirmative action program for defensive ends and got in anyway.

But... my point is that colleges in the early to mid-1960's became quite selective. Even places like the University of Akron or Kent State could afford to deny a third of their

applicants. Places like the University of Pennsylvania denied 90%.

But in the late 60's and early 70's, four things happened that have brought us to where we are today in developmental education. First, and perhaps most significant, was the Higher Education Act of 1965. Once again, Congress experienced a rare moment of lucidity and, for at least the second time in a hundred years, passed some truly intelligent legislation.

The Higher Education Act of 1965 did several things, three of them particularly significant for developmental education. First, it made massive amounts of financial aid available for the middle class and the poor to attend college. Second, it created TRIO programs that encouraged and supported thousands of minority students to enroll in postsecondary education. Third, it created large pool of funding for what it called "developing institutions" to expand their student bodies and the services available to them.

This meant that, on top of the "baby boom" generation of students, millions of people who never considered college a possibility obtained encouragement for college attendance AND the funding to make it a reality. Between 1966 and 1973, the number of college eligible students expanded at a rate more rapid than has ever been experienced in US History. The "baby boom" created millions of middle class kids who were reaching college age in the 60's. The Higher Education Act suddenly made college attendance a realistic possibility for millions of college age poor kids. It also made it a reality for a lot of adults who never thought they'd had a chance to go to college.
Furthermore, the social and political tenure of the times encouraged colleges to accept people they'd never admitted before... Black students, Hispanic students, single mothers and older adults. And every single one of them came with federal and state financial aid, financial aid from welfare and vocational rehabilitation programs, or money from mom and dad, as well as government benefits from a whole new crop of veterans... those returning from Vietnam.

In the 70's, EVERYONE could come to college. And that caused the dam to break. Colleges and universities were able to sustain selective admissions standards throughout most of the 60's. By the late 60's and early 70's, however, all these students waiving all those financial aid checks were going on to higher education. And institution had two choices... they either let students go somewhere else with their money or they admitted them.

Sure, they had to lower a few of their admission standards to accommodate some of those folks who had hundreds of points on the SAT and thousands of dollars in financial aid, but they were also able to pay for special support services for those students. They were also able to celebrate diversity and collect federal money to pay for the celebration.

Now it's at this point when I lapse from historical certainty to my own interpretation and

speculation. And it goes something like this.

Because of this massive influx of traditional and nontraditional students, institutions built new residence halls and new academic buildings and hired new faculty to sustain all of these students. And then... the bubble burst. First we began to wind down the Vietnam War in 1970, we abolished the draft and the number of veterans eligible for the benefits began to decline. Then, the pool of baby Boomers began to dry up in 1974... the year when the number of 18 year-olds in the population hit its peak... And then began to decline.

Suddenly by the early 1980's, we had more residence hall rooms and more classroom space and more professors than we had students. And, most community colleges, private 4-year colleges and less selective state universities had to dig deeper and deeper into the pool of applicants to fill their classes.

These students needed a lot of help. And so... the structure of developmental education had begun to return in the 1950's in support of returning veterans... the structure that was expanded in the late 1970's in support of nontraditional students... was expanded even further in the 1980's.

In 1975, about 15% of the first time students enrolled in American colleges and universities took one or more developmental courses. By 1995, 30% of first time students took one or more developmental courses.

In 1975, about 70% of America's colleges and universities offered services for under prepared students. By 1995, almost 90% offered these services.

In 1975, there were just under a million students taking remedial courses or participating in developmental services. Today, there are over 2,000,000.

Our field has expanded in other ways, too. There were only two professional journals in the field in 1975, the Journal of Developmental Education and the Journal of College Reading and Learning. As of 1996, there were seven.

The graduate program in developmental education at Appalachian State University was the only one in the country in 1975. Today there are five graduate-training programs in the field.

Twenty years ago, the National Association for Developmental Education had NO state chapters. Today, NADE chapters represent 34 states.

Developmental education has, in the last two decades, been the largest growth sector in the American higher education economy. It is firmly established in our postsecondary institutions. In spite of the rumors you may have heard to the contrary, it's here to stay.

So what do we need to do at this point in our history? And here's where I lapse into a combination of fact and speculation. What you're getting here is Hunter Boylan's opinion based on a lot of facts.

First, we need to do a better job of evaluating our programs. Our research in the National Study of Developmental Education indicated that the presence of a comprehensive evaluation component was a major attribute of successful developmental programs. Students participating in programs that were regularly and systematically evaluated were significantly more likely to be retained and to graduate than students participating in programs without an evaluation component. But, in 1992, only 24% of the programs conducted any sort of comprehensive, ongoing, and systematic evaluation.

Evaluation gives us the data we need to monitor how well we do and to strengthen our programs. It also strengthens our case in an increasingly competitive and performance-based funding economy. To prosper in that economy, we have to validate that developmental education works to improve student retention in courses, student success in the curriculum, student retention and graduation. And we have to communicate the results of this validation to decision-makers and legislators.

Second, we have to establish standardized measures for assessing the outcomes of developmental education. When we evaluate what we do, we all have to be singing from the same sheet of music. We can't have one program measuring its outcomes by counting how many tutoring contacts they had and another program evaluating outcomes by counting how many students passed English 101. We all have to start evaluating the same set of outcomes. That will help us develop state and national bases of information for research and assessment of developmental education outcomes. And I'll discuss some of these measures in my workshop tomorrow, as will Dean Foster.

Third, we have to become more professional. One of the major attributes of a profession is that its practice is based on a body of professional knowledge. The major attribute of a professional is his or her mastery of that knowledge. A very substantial body of research and literature has grown up around developmental education. We need to use that as a basis for what we do. There's absolutely no need to fly by the seat of our pants any more. Our actions should be guided by theory...our practice should be guided by research.

Another characteristic of a profession is that it maintains standards for practice. We have such guides from the CAS standards for learning centers, to the CRLA tutor training standards, to the NADE guides for developmental education. We need to be familiar with these and we need to use them to insure that our efforts meet professional standards.

Fourth, we have to become more active and involved politically. There are two things we need to keep in mind. First, politics is the distribution of power. Second, Tip O'Neil once said, "all politics are local." The major item in every state budget in the union is

education. Deciding how to spend educational funds is a major task of state legislators.

If we want them to spend some of that money on developmental education, we have to tell them what they're getting in return for their investment. We have to convince them that the citizens of Pennsylvania profit from an investment in developmental education. So we need to take our evaluation data, or outcomes data, our stories of student success, and our arguments for the value of developmental education to our legislators. If we want to influence how power and resources are distributed, we have to make our case with those who distribute it.

Finally, we have to think more of ourselves. About 10 years ago, I attended a state developmental education conference where a psychologist had been invited to attend the sessions, listen to speakers, and observe the ambience. As the concluding event of the conference, the psychologist reported his observations to the participants.

The psychologist observed that the major topic of conversation at the conference was how little respect and support we have at our institutions. He heard complaints about how we weren't paid enough, how we didn't have any influence, how we were marginalized professionals, and how no one appreciated our efforts

And them he pointed out that those who don't believe they deserve respect tend not to get any. He suggested that, if we focus on our weaknesses, we remain weak. Instead, he argued that we should focus on the importance of what we do in our dealings with the local institution. We should focus on the important outcomes of our work in our discussions with others.

I'd like to suggest that knowing our history, conducting evaluations, becoming familiar with and using the professional literature, and getting involved politically all contribute to enhancing our own sense of professional worth. These are among the things that professionals do:

* They know their own history and understand the historical context of their role in higher education.
* They evaluate the outcomes of what they do and use that information to refine it, improve it, and make their case with other.
* They are masters of their professional knowledge, and they continually update this mastery through attending conferences, subscribing to journals, and reading and discussing the literature. AND
* They participate in the activities that distribute power on their campuses and in their states. They sit on campus committees, they participate in institutional governance, and they communicate with those who make political decisions.

So if we want more professional respect from others, we first have to respect ourselves. It's my contention that the best way to enhance our professional self-respect is to enhance our professionalism... to become the best professionals we can be... so that we can help

our students to be all they can be.

We have every reason to be proud of our profession and our efforts because those efforts make more of a difference for more people than practically anything else that gets done today in American higher education.

Let me conclude with one of my favorite quotes from Teddy Roosevelt...

"It's not the critic who counts, nor the man who points out how the strong stumbled, or where the doer of deeds could have done better. The credit belongs to the one who is actually in the arena, whose face is marred by dust and sweat and blood, who strives valiantly, who errs and comes short again and again, who knows the great enthusiasms, the great devotions, and spends himself in a worthy cause, who at best knows achievement and who at the worst if he fails at least fails while daring greatly so that his place shall never be with those cold and timid should know neither victory nor defeat."

LEARNING AND TEACHING IN THE 21ST CENTURY: SEVEN HABITS OF HIGHLY EFFECTIVE DEVELOPMENTAL EDUCATORS

David Arendale, University of Missouri-Kansas City
Keynote Address—PADE Conference March 1998

As I thought about my text for this article, I reflected about a book that has been both personally and professionally helpful for me. I do my best to draw lessons both from my life experiences and books that I read. From those I try to develop principles to help guide me when making decisions in the future. Taking liberty with the title of Stephen's Covey best-selling book, *Seven Habits of Highly Effective People*, the seven principles discussed in his book can serve as a plan for developmental educators and learning support professionals.

Overview of Megatrends at the Institutional, State and National Level

NADE has developed a strategic plan for guiding the association and its members into the next century. It was critical that the plan was not developed in isolation from the cultural, economic, and political forces that will have an impact upon it. Some of the trends NADE endorses. Others it does not. But we have to recognize that these trends are active forces that have to be dealt with [www.umkc.edu/cad/nade/nadedocs/straplan.htm].

Following is a list of several megatrends that have an impact upon our services to students. A complete overview of the trends and some of the false beliefs that are helping to support them are available through the NADE homepage [www.umkc.edu/cad/nade/nadedocs/trends.htm]. Policies that have been developed or proposed at the local, state and national levels are often based upon these megatrends [www.umkc.edu/cad/nade/nadedocs/devstate.htm].

Political trends: Accountability by policy makers will increase. It is very popular to blame the high schools and parents for producing a generation of developmental students. As a culture, America spends a great deal of time in affixing blame for social ills. However, blaming does not solve problems. Rather than directing energy to fixing the problem, it fuels more anger.

Seeking a party to blame, some policy makers want to fine the high schools from which they graduated. Plans are being considered in Florida, Montana, New Jersey, Washington, and West Virginia to require a high school district to pay for the cost of providing developmental course work at a state institution. Casper College in Wyoming has already implemented such a plan.

Policy makers in many states believe that the national movement for increased requirements for high school graduation has eliminated or lessened the need for post-secondary academic support and developmental courses. On the contrary, as entrance standards are raised, faculty expectation levels often rises even more quickly. Recently when entrance standards were raised for the California State University system, the mathematics department on one campus raised their required pass rate for the departmental screening test even higher. More students were placed into the developmental courses *AFTER* the increased entrance standards than before.

Institutional Trends: There will be an increasing recognition by institutional leaders and faculty members that students from all levels of academic preparation need learning assistance in one or more of their courses every academic term.

Economic Trends: Learning assistance centers that have research-based evidence of positive student outcomes are viewed by many policy makers as important components of enrollment management and student retention programs.

Instructional Trends: More institutions are establishing learning- and teaching-effectiveness centers to assist with faculty development and to increase the efficiency and effectiveness of student learning. Some are outgrowths of current learning assistance centers.

Responding to the Current Education Environment

Rather than reacting to others, we must choose own actions. After developing some level of understanding of the current environment, the next place to turn is to see if there are basic principles that can guide my choice of future actions. That is where Steven Covey's book, *Seven Habits of Highly Effective People* fits with this discussion. Covey interviewed many successful people in order to understand if there were basic principles that helped guide their lives.

His qualitative research identified the following seven:

- Be proactive
- Begin with the End in mind
- Put first things first
- Think win-win
- Seek first to understand . . . Then to be understood
- Synergize
- Sharpen the saw

We can use these seven principles to help guide our actions as we improve our ability to provide access, equity and success for our students.

1. Be proactive.

Rather than giving in to the natural reaction to be defensive, now is the time for us to take the initiative. This is one time that apathy is our friend. Most people will get out of the

way of people who have a clear plan. Upper level administrators at our institutions are looking for leadership from the faculty and staff.

* If you are not already doing so, conduct detailed studies on the impact of your program in terms of increased academic performance, reenrollment and graduation rates for the students. Either by yourself or in tandem with others, develop an institutional definition of which students should be in your data study. And do the study every year. If you do not have the expertise to do the study, seek out colleagues in the education, math or other departments that would be interested in being partners with you. Programs that cannot document their effectiveness are at severe risk for elimination.

* Volunteer for the student retention or enrollment management committee. If it does not exist, do what you can to have one formed. Learning centers can often become the center piece for student retention programs since we often work with assessment, institutional research data, new student orientation, extended orientation, tutoring, Supplemental Instruction, developmental courses, academic advising.

* Publish an annual report on the activities of your learning center. Include both qualitative and quantitative studies. Show how your center is in line with written institutional mission statements. Share your strategic plan for the future direction of the center and how it contributes to overall student retention and graduation rates. Disseminate the report to various policy makers on campus. At UMKC we publish an annual report of about 200 pages. About half of it is a narrative and other half are appendices. It reminds folks who we are and what we have done for them lately. It also serves as an excellent encyclopedia of all our activities and is often used throughout the year for requested reports or for more information. We have now placed major portions of the report on our Center's Internet homepage [www.umkc.edu/cad/].

* Get involved politically. Write letters. Make telephone calls. The only reason that TRIO is alive today is through the work of thousands of students, parents, TRIO staff members, and community members who flooded congressional offices with short, thoughtful messages. Working through your campus procedures, invite local state and national legislators to your campus for a tour of the learning center. Legislators need to put a face on learning assistance and developmental education programs.

* Expand your learning assistance center into new areas of service. We as professionals are experts on learning and teaching. We can share what we know in a variety of ways. For example, at UMKC we serve as the trainers for all new graduate teaching assistants. We conduct five two-hour workshops on classroom assessment techniques, student learning styles, constructing tests, leading class discussions.

2. Begin with the End in mind.

What do we want our academic assistance program to look like in ten years? Fix that image in your mind now. What do we need to do in order to become that image? I know from personal experience how the press of the daily emergencies and routine paperwork drowns out my attention to the future. One of the most valuable activities that I did at the Kellogg Institute was designing a learning center for the 21st century.

During the process of developing a strategic plan for NADE, we thought about what we wanted NADE to look like in the future. The following vision statement was developed. *By 2003, NADE will be a nationally recognized association of professionals with expertise to help students academically succeed throughout the entire educational experience from high school through college and graduate/professional school.*

Parts of the vision statement have already been accomplished. Others will take more time. I think that sometimes our profession has limited it scope of interest and influence. Often we have focused on the most academically needy students. This spring NADE will propose to its members to chance the mission statement of the association. Formally it stated that NADE's mission was to create knowledge, train its members, etc. While important activities, it is time for the association to more clearly state its mission to its own members, upper level campus administrators, state and national policy makers, and the general public.

The new proposed mission statement is the following. *The purpose of NADE is to increase the academic success of students.* Note what that statement says, and does not say. It does not set limits on which students should be supported. It does not say at what academic level these students reside. It allows our association to expand its vision to serve all students on campus, not just those with lower predicted chances for success. Our centers can grow into new areas of service to faculty members in the academic departments by becoming learning and teaching centers. It allows us to build partnerships with high school faculty members and welcome them into the association as colleagues with common interests. Faculty members from academic departments can view us as a resource for increasing the efficiency and effectiveness of the learning environment that they create with their courses. It tells policy makers that our focus is on the success of our students and not just on protecting our jobs. If we take care of our students and policy makers understand the value of our academic assistance centers, our employment future will be secure.

I learned a new word the other day. A business person was talking about how he had to change his business due to the impact of technology. He had to *"repurpose"* himself. Repurposing is thinking outside the normal limits and seeing new possibilities. I see our center at UMKC as the Learning and Teaching Center. This Center serves all students and faculty members, not just those who are having difficulty. Our Center is about increasing the effectiveness of learning for all students and the productivity of teaching for all faculty members. The professional literature is spending time talking about educational productivity. A sample of some of the initiatives that other institutions are

taking is available [www.umkc.edu/cad/nade/nadedocs/lrnteacn.htm]. The document also provides several books, periodicals, and resource organizations concerned with faculty development and learning/teaching issues. An overview of some current trends and issues with increasing the effectiveness of education is available. [www.umkc.edu/cad/nade/dalern97.htm].

We can repurpose our programs through the following means:

* Move beyond study skills classes. In "Ten Recommendations from Research for Teaching High-Risk College Students," Stahl, Simpson and Hayes said, "Students need to learn more than how to develop and when to employ the [learning] strategies, however. They also need to learn how to transfer specific strategies to the particular academic literacy demands of each course. Indeed, without effective training for transfer, college reading and learning courses face the very real danger of standing in isolation from the academic disciplines and of remaining mired in the deficit model. Strategy transfer occurs more naturally when students have a chance to practice the newly learned strategies on their own texts and with tasks perceived to be 'real'." In 1993, Kerr wrote about the difference between 'detached' and 'embedded' programs in the teaching of study skills or strategies. The more traditional approach of 'detached' programs involves the presentation of study techniques in isolation. In contrast, 'embedded' programs present learning and study strategies within the context of specific content and are more likely to result in regular use. They must be integrated and interwoven into the fabric of instruction. We must find ways to embed study strategy instruction into actual course content.

  Embedding study strategies in the course content can be done in various of ways:

  (1) The first way to embed the strategies is to develop adjunct courses to accompany content courses. Georgia State University had an article published in the NADE Selected Conferences titled, "From DS to LS: The Expansion of an Academic Preparation Program from Developmental Studies to Learning Support" [Link to article, cccpap96.htm]. It reported how Georgia State using adjunct courses -- conducted by composition, reading and mathematics units -- offered learning support to students co-registered in content courses such as history and mathematics. The first adjunct course offering was a pilot for developmental studies students who were required to take the exit level course of the reading sequence. Students who met this and other academic requirements were allowed to enroll in "Learning Strategies for History" (LSH072) in place of their required reading course. This adjunct course was paired with "Introduction to American History" (HIS113). Participants received five quarter hours institutional credit (not counted toward a degree but included in the calculation of tuition) for LSH072 and they also received five hours credit toward their degree for HIS113. The curriculum of LSH072 focuses on three main instructional components: (a) typical study and learning strategies such as time management, annotating texts, outlining, note taking, reading comprehension, memory, and testwiseness; (b) students' metacognitive awareness through learning

logs, weekly observations of student behaviors, and learning styles inventories; and (c) historiography, or ways of reading, writing, and thinking, that give structure to the study of history (Commander & Smith, 1995).

(2) The second way to embed study strategies into courses is through offering Supplemental Instruction for students in historically difficult courses for many students. Supplemental Instruction provides a way to integrate *what to learn* with *how to learn*. Video-based Supplemental Instruction is the newest variation of this model for students who need a more intensive experience of learning how to apply study strategies immediately with difficult course work. These programs are nonremedial and assist students to develop the needed learning strategies while they are currently enrolled in college degree credit courses. More information about SI and VSI are available at [www.umkc.edu/cad/].

(3) A third method to embed study strategies and academic support into college credit courses is to train graduate teaching assistants and faculty members to embed the study strategies themselves. This is occurring in other countries. Our experience in implementing SI in other countries has consistently resulted in faculty members attending our workshops to learn how they can implement changes in their class lectures -- often using SI strategies -- to help students to learn more. And, in some countries the appropriations from the government to the individual institution could be reduced if the teaching quality does not increase. It is only a matter of time before this outcome-based funding formula comes to the U.S.

* Another way to repurpose our program is to identify research-based learning assistance models to adopt. Search the professional literature and attend conference sessions that feature programs that can empirically document the effectiveness of their programs. Study the national research from the Exxon Research Project on Developmental Education to identify the characteristics of effective programs: centralized administration of learning assistance services, academic assessment, prior training of tutors, rigorous evaluation of all program components. Use NADE's Self-Study Guides to evaluate your tutoring services, adjunct instructional programs (e.g., Supplemental Instruction, Treisman workshop format), and developmental courses.

3. Put first things first.

Spend several hours each week on taking practical steps on making the future occur now. Take out your schedule and plan in specific times on specific days. Keep your promise to work during those times, treating them like a major committee meeting that could not be moved. Close your door during those times and do not allow yourself to be distracted. Maybe that is spending a few hours writing a professional publication, grant application, or developing curriculum materials for the graduate teaching assistant workshop to be offered six months from now.

4. Think win-win.

People generally act from self-interest. It is human nature. Devise ways that your plans can help others. Work with other departments on campus. The more that learning assistance and developmental programs are viewed as integrated with the rest of academic affairs, the safer they generally are. We are fortunate at UMKC that we have dual reporting responsibility to both student and academic affairs. Isolated learning assistance programs that appear to be in constant turf battles with other departments are at severe risk. As shared earlier, find ways to involve other faculty members with your program. Maybe they can assist with research projects, staff training programs, or other activities.

5. Seek first to understand . . . Then to be understood.

For an hour every once in a while listen to Rush Limbaugh. Read some of the commentaries made by conservative newspaper columnists. Whether we want to agree with them or not, their statements and the ensuing discussion give a picture of how many current policymakers are thinking. We need to understand the new Republican majority if order to influence it. It is no small fact the Republicans renamed the House Committee on Education. The new name is the *House Committee on Education and Economic Opportunity*. It suggests that these legislators think that education should be directly linked with economic opportunity. We need to use the language of the new majority. There are people of good will on both sides of the education issue. It will be tragic if we are unable to effectively communicate our position. Education programs must display documented results. Education can no longer expect to be funded on the basis of promises of future activities and results. This is the reason I suggested that you engage in both qualitative and quantitative research studies on an annual basis. I fear that good programs that do not do their research studies will be reduced or eliminated.

6. Synergize.

The basic definition of synergy is that the whole is greater than the sum of the parts. I think that we often do not appreciate how much we know and can do. We are experts in learning theory and its application. We know and practice the art of good teaching. Through our work we spend a great deal of time dealing with assessment and institutional research data. We work with programs often cited for their impact on student retention: new student orientation, tutoring, academic advising, Supplemental Instruction, developmental course work, study strategies course and the like. We need to repackage this expertise and use it to influence policy makers that we are on the cutting edge of improved learning systems and can make a significant difference for all students on our campus, not just the developmental ones.

There is a major paradigm shift occurring in higher education. After a long period of time of focusing on teaching, there is a healthy shift to focusing on learning. While the instructional paradigm often focuses on increasing the quantity of information, the learning paradigm focuses on the efficiency and effectiveness of the learning process regarding what does the students know and what can they do with the new information.

Many classroom professors are searching for effective ways to change from a transmission mode of instruction to a focus on improving the learning and mastery of content material by students. This represents a change from being teacher-centered to learning-centered. Another trend impacting upon higher education is a change in the focus of student academic support and enrichment. In the past some institutions focused their attention by serving only students at the far extremes, developmental students and honors students. I think that the new trend will be to serve all students at the institution regarding academic excellence and persistence toward achievement of their academic degrees.

Most writers agree that the majority of faculty members want to improve the learning environment. They have tremendous content knowledge. However, we as learning assistance professionals possess some of the knowledge and skill that would be helpful to faculty members as they seek to improve the effectiveness and efficiency of the learning process. There are no better experts in the learning process than those who are in our profession. Many developmental educators possess knowledge and skills in one or more of the following areas: peer collaborative learning, informal classroom assessment techniques, new paradigms of student learning pedagogy, instructional technology, affective domain needs of students, curriculum development, peer reviews of teaching activities, professional development activities, adapting instruction for diverse learning styles, and other areas.

At my institution we often consult with faculty members on improving instructional delivery, integrate emerging technology with instructional delivery systems, conduct new faculty member orientation and instructional training programs, and host faculty development programs. We have been invited by faculty members and academic departments because of the reputation we have with supporting academic development of students at all levels within the institution. Functionally we have become a teaching and learning center. This provides an excellent way to integrate ourselves more deeply into the academic community. We are all partners in the learning process.

There are several ways that our learning assistance centers can provide assistance to other academic units on campus. In several of the examples the center uses existing programs and has adapted them for use as faculty development experiences.

* At UMKC our learning center helps to conduct the training of new graduate teaching assistants. We provide workshops on how to embed study strategies, use collaborative learning strategies and other topics. When Supplemental Instruction student leaders are trained in two-day workshops, faculty members from the classes where they will be assigned are invited to attend the workshops as well. Faculty members observe the various collaborative learning and embed study strategy activities and select ones to incorporate into their own classroom activities. The practice of faculty members attending SI leader workshops is frequently reported from institutions in Africa and Europe.

* The Educational Development Center at Central Missouri State University coordinates the campus new student orientation course. The original purpose of the course was for faculty development. Instructors for the course are drawn from volunteers throughout the campus. Many of them are faculty members who receive, in lieu of extra pay, funds that can be used for professional development activities of their choice. In addition, orientation teachers gather on a weekly basis to discuss common course issues and share strategies on effective teaching.

* At Anne Arundel Community College the campus Supplemental Instruction program is used as a vehicle for faculty development. Faculty members are recruited to serve as mentors of the SI study review sessions that occur outside of class for other professors in academic departments outside of their own. The purpose of this is to place the faculty mentor in an area which is familiar (e.g., science), but not an area where they are an expert. This helps to avoid the potential problem of the faculty mentor from criticizing the content delivery of the course. For example, a professor in biology might serve as a mentor for the SI sessions for a chemistry course. As the mentor professor observes the student led sessions and offers suggestions to the SI leader, they have an opportunity to reflect about their own approach to the course material and hear student comments regarding the academic issues that they are dealing with. The Fund for the Improvement of Postsecondary Education has twice provided grants to Anne Arundel Community College to disseminate information about this method for faculty development and renewal. [Link to articles, rwment90.htm and rwment96.htm]. Another approach to using SI as a vehicle for faculty renewal was experienced at Salem State College. [Link to article, jbfacd94.htm]

* Another forum for feedback to professors can be through the SI leader. If the faculty member invites the SI leader to do so, the student leader can report anonymous feedback to the course professor concerning what the students do and do not understand about the lectures. This is a common practice for faculty members for the University of Port Elizabeth in South Africa.

7. Sharpen the saw.

Continue to invest in yourself. I feel like I am preaching to the choir on this point since you are here at this conference. Attending conferences and reading widely in areas related to learning assistance is critical to see the connections between our profession and our colleagues. We must increase our skill in working with educational technology. Work on advanced degrees is often critical for establishing credibility with colleagues and upper level administrators.

Conclusion

We have a wonderful opportunity to control and shape our destiny. The Seven Habits' principles work in all areas of our lives. Covey's Seven Habits of Highly Effective People are not unique. Many of the world's great religions and philosophies said them first, and maybe with even more eloquence. But I hope you can see how we can apply

those principles to help us be more effective as educational leaders. We need to learn to reinvent ourselves as resources for the entire campus—students and faculty alike—in renewing the learning environment. Our institutions need for our centers and departments to expand our services to include academic enrichment for all students. I exhort you to find ways to make your existing departments more comprehensive in its services. The profession must continue the process of being mainstreamed into the academic life of college. Whatever the name for your center or department, become a more comprehensive learning center in service. I believe that is the bright future for our profession. Let us put *"First things First"* and begin today.

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TRANSITION FROM HIGH SCHOOL TO COLLEGE: CONSTRUCTING A FRESHMAN SEMINAR TO IMPROVE ACADEMIC PERFORMANCE AND STUDENT RETENTION

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Introduction

The freshman year is a year of transition. Some students arrive to campus from a small high school, some from a large one. Some did well academically in high school, some were in the bottom half of their class. Some come from households where a college education is a parental memory, some do not. For some, tuition and expenses are not major concerns. For others how to fund their education is a continuing dilemma. Some students commute, while others reside on campus.

Each, however, enters college as a freshman with expectations, motivations, interests, and abilities. Some stay until they graduate, others do not. It is not unusual for first-semester freshmen, who might otherwise have the potential to be successful, to experience difficulties in adjusting to the academic demands of college life. Most, if not all freshmen enter college underprepared for college level work and need assistance in reaching their full potential.

Many students enter college with only vague notions of what undergraduate education is all about, where it is supposed to lead, and what the institutions expect of them. The clearer and more public our statements about what we expect, the more likely students are to map the appropriate course of study.

Higher education has experienced many changes in the last decade with respect to the student population that it now serves. Students are changing from academically skilled, middle-class youths to students with a more complicated mix of academic preparation, age, socioeconomic backgrounds and reasons for enrolling in college. It has been demonstrated time and again that without assistance, students will become a part of the attrition statistic that is greatest between freshman and sophomore years.

At Kutztown University, nearly 62% of all undergraduates are first-generation college students. Of those students entering the University as freshmen, 25% will leave their first year, and only 50% will complete their degree requirements within 5 years (KU Office of Research and Planning, 1992). While the University's orientation program is designed to acquaint students with information on academic life, extracurricular activities, and support services, there are limits as to what can be accomplished within a two-day summer program.

The Student Support Services Program (SSSP) at Kutztown University utilizes intrusive intervention modalities in its Freshman Year Program to address the academic, affective, behavioral, and financial needs of its students. It is generally accepted that intrusive interventions, especially for at-risk students, create the most effective and powerful academic and retention outcomes (Tinto, 1993). Intrusive advising and a Freshman Colloquium best characterize the proactive intervention programming utilized by the SSSP. A successful program of academic support offers a well-planned program of advising that provides support throughout the entire freshman year. The goals of the SSSP Freshman Year Program are to: a) provide academic support for students who lack the educational preparation for successful college level study, b) improve student academic performance, retention and graduation rates, c) provide a supportive environment to nurture students as learners, d) assist students in developing self-confidence and reducing their fear of failure, e) assist students in managing their roles a efficient learners within the college environment, f) assist students in understanding the benefits of higher education, g) assist students in knowing their roles and responsibilities as undergraduates, h) help freshmen become self-sufficient and independent as college students, i) inform freshmen of the numerous resources available at the University, j) increase students' identification with the University, and k) help students develop an appreciation for the cultural diversity at the University.

The SSSP Freshman Colloquium

Freshman Colloquiums have been in existence since 1888 (Acton, Campbell, Hartel, & Schwartz, 1994) and currently are being offered at 71% of the institutions of higher education (National Resource Center for the Freshman Year Experience, 1992). Freshman Colloquiums have been found to be very successful in assisting students in transition from high school to college. Students have better understanding of their roles in the learning process and how to engage in appropriate behaviors that lead to increased levels of academic achievement and retention (Tinto, 1993; Cuseo, 1991; Fidler, 1991). The success of Freshman Colloquiums on academic persistence, achievement, and retention holds whether the samples studied are under-prepared students, high-risk students, students of color, and/or average or above-class students (Cuseo, 1991).

The SSSP Freshman Colloquium is a mandatory hour-long weekly meeting held for ten weeks during the fall semester. All incoming freshmen accepted into the SSSP are required to attend the colloquium. The colloquium is non-credit bearing and is taught by faculty in the SSSP. The SSSP Freshman Colloquium focuses on campus academic expectations, student academic goals, and appropriate student academic behaviors. The SSSP Freshman Colloquium instructs students in the writing, reading, reasoning, and study skills necessary to engage in intellectual pursuits at Kutztown University. This course also discusses those behaviors that students tend to engage in that places them at risk for poor academic performance and withdrawal (i.e. substance abuse). The goals and objectives of the SSSP Freshman colloquium include: a) assisting students in understanding the benefits of higher education, b) assisting students in understanding their role and responsibilities as an undergraduate, c) assisting students in knowing the many resources available to them at the University, d) assisting students in focusing their attention and energy on attaining their academic and personal goals, e) increasing

students' identification with Kutztown University, f) equipping students with the tools to effectively manage the University system, g) helping students become self-sufficient and independent as college students/learners, and h) helping students develop their appreciation for the cultural diversity at Kutztown University.

The SSSP Freshman Colloquium student requirements include: a) attendance at all 10 weekly colloquium sessions, b) being prompt in arriving for each session, c) fully participating in all discussions, d) completing all assigned readings prior to each meeting, e) writing and submitting a one-page weekly journal of their college experiences, and f) conducting a written interview of a professor.

The instructional techniques we use in our Freshman Colloquium include lecture, cooperative/collaborative learning experiences, undergraduate assistant modeling, role playing, assigned readings, student presentations, and student writing assignments.

SSSP Freshman Colloquium Longitudinal Outcome Findings

Eighty-three freshman students who were assigned to the SSSP Freshman Colloquium for the Fall 1994 semester have been followed for the past three years. Table One presents the demographic characteristics of these students:

Table One
DEMOGRAPHIC CHARACTERISTICS OF
FRESHMAN COLLOQUIUM PARTICIPANTS

TOTAL N:	83
FIRST GENERATION:	88%
SEX: MALE	58%
FEMALE	42%
MEAN AGE:	18
RACE: STUDENTS OF COLOR:	23%
WHITE STUDENTS:	77%
DISABLED STUDENTS:	35%
HOUSING: ON CAMPUS:	76%
OFF CAMPUS:	24%
CONDITIONALLY ADMITTED:	58%
ADJUSTED GROSS INCOME:	
0-10,000.00	13%
10,000.01 - 20,000.00	11%
20,000.01 - 30,000.00	14%
30,000.01 - 40,000.00	10%
40,000.01 - 50,000.00	17%
50,000.01+	35%

As indicated in Table One, these students are at high risk for poor academic performance and withdrawal due to several characteristics: 88% of these students are first generation students, 23% are students of color, 58% were conditionally admitted to the University requiring developmental courses, and 35% of the students reported suffering from physical and/or learning disabilities.

Table Two presents the retention rates of these students in relationship to their colloquium attendance:

Table Two
RETENTION RATES OF COLLOQUIUM ATTENDEES

YEAR AT KU	NUMBER OF COLLOQUIUM SESSIONS ATTENDED			
	0	1-5	6-7	8-10
N	19	15	18	31
FIRST	58%	87%	94%	97%
SECOND	32%	47%	78%	77%
THIRD	27%	20%	61%	61%

First year retention rates for those students who did not attend the colloquium was 58% compared to 94% and 97% for those students who attended 6-7 and 8-10 colloquium sessions respectively. As Table Two indicates, third-year retention rates for those students who attended the colloquium 6-10 times was 61% compared to 27% for non-attendees and 20% for those students who attended the colloquium 1-5 times.

Overall grade and quality point averages are presented in Table Three:

Table Three
ACADEMIC ACHIEVEMENT LEVELS OF COLLOQUIUM ATTENDEES

TERM	GPA/GPA MEANS FOR COLLOQUIUM CONTACT CATEGORIES				P VALUES
	0	1-5	6-7	8-10	
F94 gpa	.99	1.16	1.84	2.34	.0000
F94 qpa	.99	1.16	1.84	2.34	.0000
Sp95 gpa	1.25	1.67	1.51	2.20	.0110
Sp95 qpa	1.34	1.54	1.71	2.27	.0008
F95 gpa	1.67	1.37	1.49	2.44	.0016
F95 qpa	1.81	1.93	1.79	2.41	.0068
Sp96 gpa					.2089
Sp96 qpa	1.76	1.93	1.88	2.51	.0092
F96 gpa					.4877
F96 qpa	2.43	2.22	2.12	2.69	.0333
Sp97 gpa					.2832
Sp97 qpa					.1475

(Lines indicate significant differences.)

These grades and quality point averages were higher through the Fall of 1996 for those students who attended the colloquium 8-10 times compared to the other categories of colloquium attendance. First-semester mean GPA for non-attendees was .99 versus 1.84 for those students who attended 6-7 times and 2.34 for those attendees who attended the Freshman Colloquium 8-10 times. The second year withdrawal rates of non-attendees and those students who attended the colloquium 1-5 times may skew this data.

Several variables-first generation status, race, disability status, academic motivation level, and adjusted gross income-were investigated to determine if any of these variables, instead of colloquium attendance, could explained the increased academic achievement and persistence findings. No significant findings were found for any of these variables.

The Freshman Colloquium experience for this particular group of attendees appears to have been equally effective for a) first generation and non-first generation students, b) students of color and white students, c) students without disabilities and students with disabilities, d) students with high incomes and students with low incomes, and e) students with low or high baseline levels of academic motivation.

There is one confounding variable in these analyses. These colloquium attendees were also attendees in the overall Freshman Year Experience provided by the SSSP. What effect this involvement has on the academic achievement and academic persistence rates observed in these students is unknown.

References

Acton, A.J., Campbell, W.E., Hartel, W., & Schwartz, S.W. (1994). The Wadsworth College Success Course Guide.

Cuseo, J.B. (1991). The Freshman Orientation Seminar: A Research-Based Rationale for It's Value, Delivery, and Content. Columbia: National Center for the Freshman Year Experience.

Fidler, P.P. (1991). Relationship of freshman orientation seminars to sophomore return rates. Journal of the Freshman Year Experience, 3(1), 7-38.

Kutztown University Office of Research and Planning. (1992). Factbook for 1992-93. Kutztown: State System of Higher Education.

National Resource Center for The Freshman Year Experience. (1992). Summary Statistics: 1991 National Survey of Freshman Seminar Programming. Columbia: National Resource Center for the Freshman Year Experience.

Tinto, V. (1993). Leaving College: Rethinking the Causes and Cures of Student Retention (2nd. ed.). Chicago: The University of Chicago Press.

MOVING FORWARD:
A TRANSITION PROGRAM FOR STUDENTS WITH DISABILITIES

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In some ways, "leaving high school and going to college" has become part of the American dream for *all* students. Armed with that goal in mind, students with disabilities are attending colleges and other post-secondary training institutions in record numbers. Preparing these students for the transition from high school to the post-secondary training environment is the challenging task which a program in Lebanon County is attempting to address.

The purpose of this presentation is to provide a description of a two-year training model which has evolved over five years of collaboration between Lancaster Lebanon Intermediate Unit 13(LL IU 13), Harrisburg Area Community College (HACC), and Lebanon County School Districts.

Background

The catalyst for addressing transition was the Individuals with Disabilities Act (IDEA) 1991, which mandated that special education programs prepare students for post school outcomes including post-secondary education and training. In Lancaster and Lebanon Counties, initial efforts to address this topic involved inservice training for high school counselors, special education teachers, and administrators. For these sessions, a panel of representatives from regional post-secondary training institutions provided an overview of information about the institution that they represented. Panelists explained the type of services available for students with disabilities on each campus. In addition, panelists discussed how students access disability support services and how they are deemed eligible for academic accommodations.

Following the above initiative, a second approach to training was conducted by LL IU 13 for Lancaster and Lebanon Counties that involved conferences for students, teachers and psychologists. Again a panel format including representatives from a variety of regional post-secondary training institutions was utilized. The panel included two private four-year institutions, a public four-year institution, a community college, a two-year trade school, and an art school. The focus was on access and delivery of services. It included breakout sessions for each of the target groups.

During school year 1994 and 1995, the Intermediate Unit transition consultant and the Community College counselor visited Lebanon County Middle and High School special

education classes to talk with students about post-secondary training options and requirements. This approach was viewed as time-consuming and provided only a general overview of information.

Despite these preliminary efforts, there was a sense that there was still much work to be done in both counties. School districts were reporting that students were graduating with post-secondary training goals and with plans to attend colleges, universities and trade schools. In many cases, these students were academically prepared, but they were not prepared to manage the self-disclosure process and requirements. Additionally, it had been reported that few students had practiced the use of modifications such as Kurzweil readers, books on tape, or note takers.

In an effort to develop a better system of disseminating general information about regional schools as well as specific information about self-disclosure and self-advocacy requirements, a two-year model was developed. The remainder of this paper will provide an overview of the two-year Lebanon County Model that has emerged from these experiences.

Explanation of the Two-Year Training Model

In 1996, the first year of the two-year cycle, a team from IU 13 and HACC collaborated to take efforts one step further and to organize a day of training for students with disabilities who had identified post-secondary training as a desired IEP outcome. The event was billed as a "Mini College Fair for Students with Disabilities." It was held on the Lebanon Campus of HACC one week prior to the countywide college fair that is annually sponsored by one of the school districts.

The purpose of the event was:

1. to tailor a college fair for students with disabilities providing information about training institutions and services;
2. to give students an opportunity to spend a day on a college campus;
3. to give students a chance to interact with students from other schools in an unfamiliar setting;
4. to list specifically steps students must take to access disability support services in a training setting after high school graduation;
5. to provide an opportunity for high school and post-secondary institution faculties to engage in round table discussion about issues relating to students needs;
6. to prepare students for the larger countywide college fair; and
7. to briefly present information about effective study skills tips to students.

Participation was excellent. Each of the six Lebanon County school districts sent between 8 to 15 students and 1 to 3 faculty members. Informal evaluations by the students and the faculty were positive.

A serendipitous outcome of the event was the discourse between the high school and post-secondary faculties. The two groups were polarized over several issues. The gaps

seemed to be philosophically and legally based on the differences between service entitlement in the high school setting and service eligibility in the post-secondary setting. In spite of the differing perspectives, the two groups gained significant insight and favored continuing contacts in the future.

In year two of the two-year cycle, the program changed format and focus. The planning team for the second "College Mini Fair for Students with Disabilities" felt that it was necessary to address the issues of *self-advocacy* and *self-disclosure*.

Under Section 504 of the Rehabilitation Act of 1973 and under the Americans with Disabilities Act of 1990, to be eligible for academic accommodations in the post-secondary training setting, students with disabilities must complete a process of self-disclosure. They must verify their disability through documentation, which is assessed by college officials to determine their eligibility for services at that institution. After the *self-disclosure* process is completed, students must be able to *self-advocate* in order to express their needs for adaptation, accommodations, support, and/or services.

These were two terms that high school students needed to learn. For training purposes, *self-advocacy* was described as "being able to speak up for one's self, to get one's needs fulfilled." *Self-disclosure* was described as the mandated requirement of providing the post-secondary institution with professional/medical documentation of the disability to verify legal support for needed accommodations.

During the second year of the cycle, the purpose of the training was:

1. to define and discuss self advocacy, disability awareness, rights and responsibilities, and self disclosure;
2. to learn about how these concepts are applied in the post-secondary training arena;
3. to supplement school district efforts to prepare students with disabilities for post-secondary training outcomes; and
4. to provide students with an opportunity to participate in a day-long training session on a college campus with students from a variety of schools.

In the second year, the program audience was expanded to include the parents of high school students with disabilities. Eight parents participated. Five of the six Lebanon County school districts sent from 8 to 15 students and from 1 to 3 faculty members.

Activities included viewing and discussing the video "FAT City: How Difficult Can This Be?," completing sample forms for a self-disclosure process, and watching skits that demonstrated aspects of the self-disclosure process.

To supplement this two-year training model in Lebanon County, individual concerns of students are being addressed at an annual staffing transition with representatives from County adult service providers including, when appropriate, a representative from the community college. These inter-agency transition staffings for high school seniors and

juniors provide a structure for individual student concerns to be addressed prior to graduation.

Post-secondary Perspective

From the perspective of a post-secondary disability service provider, this two-year model has several benefits as follows:

1. Students with disabilities are exposed to a variety of educational options in a supportive environment.
2. Secondary staffs and college personnel have a planned forum to meet and dialog.
3. Secondary staffs have an opportunity to learn college processes and demands, which hopefully will impact their instructional methods and interventions.
4. Students have the opportunity to develop and practice crucial self-advocacy and self-disclosure skills.
5. Information on post-secondary documentation requirements can be shared with students, parents, and secondary personnel.

Intermediate Unit/School District Perspective

From an Intermediate Unit/ school district perspective, this time-efficient model provides an opportunity for high school students with disabilities to learn about the demands of the post-secondary training environment so that they can better prepare for those challenges. Additionally, the training cycle provides a routine structure that schools can depend on to continue to train students who are in their systems.

The collaboration that has been discussed in this paper between LL IU 13 and HACC has created valuable learning opportunities that supplement the efforts of school districts to prepare students for successful post-secondary training outcomes.

Issues

During the years of training to prepare secondary faculty, students with disabilities, and their parents for post-secondary education, the following issues have become topics of discussion that require on-going dialog between public schools and post-secondary institutions:

- *Documentation* - Public school documentation of a disability and the educational services a student receives often inadequately fulfill the requirements of the post-secondary institution.
- *Testing* - Psychological testing done by public schools is often done early in a child's education career for diagnostic purposes and frequently does not address the need and type of academic accommodations a student needs in the post-high school academic environment.
- *Accommodations* - While still in high school, few students in the Lebanon County area are utilizing recommended accommodations or practicing communication about their learning needs.
- *Technology* - The "Mini Fair" has also provided an opportunity to share assistive technology that is available to students who attend the Lebanon Campus of Harrisburg Area Community College. Exposure to this equipment has increased

awareness that there is a need for students to use and to be comfortable with assistive technologies before they enter the increasingly challenging academic setting of college. Additionally, two school districts purchased equipment that was demonstrated at the college mini-fair.

Closing Comments and Comments About The Impact Of This Model

The key to the success of this collaborative effort has been the people who have been dedicated to making it happen and to making it grow. It has been called an organic model because it grows with each new experience, with each year, and with our increasing awareness of each other's cultures as well as demands. Public school special education teachers are beginning to realize that preparation for post-secondary training for students with disabilities is more than fulfilling academic requirements, getting good grades and SAT scores. It must include practicing self-advocacy skills and using accommodations.

The multiple-year collaboration has increased awareness of the differences between the systems, philosophies, and cultures. Some changes have occurred in this county. In one district, testing practices have changed. IEP teams have expanded to include representatives from the community and the college. Students are entering training after high school graduation a little better prepared than they were five years ago.

The process that has been described in this paper is a foundation. It is a beginning step to opening doors for students with disabilities so that they do not have to fail a semester or two before they figure out that they are no longer in high school. Rather, moving on to post-secondary education can become a smooth, seamless, cooperative system of training from the high school classroom to the post-secondary training institution.

Selected Readings

Battle, D.A., Dickens-Wright, L.L., Murphy, S.C. (1998, January/February). How to Empower Adolescents: Guidelines for Effective Self-Advocacy. *TEACHING Exceptional Children*, 28-33.

Brinckerhoff, L.C., Shaw, S.F., McGuire, J.M. (1993). *Promoting postsecondary education for students with learning disabilities - a handbook for practitioners.* Austin, Tx: Pro-Ed.

Eaton, H. (1996). *Self-advocacy: How students with learning disabilities can make the transition from high school to college.* Santa Barbara: Excel Publishing.

McGuire, J.M. (1997). Four-year college programs: Effective practices for developing employment skills. In P.J. Gerber & D.S. Brown (Eds.), *Learning disabilities and employment* (p.117-141). Austin, TX: PRO-ED.

Wille-Gregory, M., Graham, J.W., Hughes, C. (Spring, 1995). Preparing students with learning disabilities for success in postsecondary education. *TransitionLINC*, p. 1-6.

LEARNING, LITERACY, WRITING LABS: TUTORS EMPOWERING STUDENTS

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&
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In 1996, James Boswell, Professor of English and Margie MacDonald, Director of ACT 101 wrote a mini-grant to provide additional support services for developmental writing students. The college then received the grant for $1600. With this seed money, two returning student tutors who were trained through the tutor training course (English 113), were hired. These student tutors who are now college graduates were given the responsibility of administering the program. They created materials and also worked with one developmental writing class, English 051. The students were to use the writing lab to complete assignments. Student progress was closely monitored. Margie MacDonald served as the program counselor. Each participating employee was paid a stipend for his/her services. Professor Boswell supervised the tutors. Most of the grant funding was spent on supplies and on the participating tutors.

The tutors who participated were Catherine Dankosky, BS in Education from Indiana University of PA, and David Jamison, BA from Shippensburg University. The tutors divided the 12-student class in half, each taking 6 students for monitoring and primary assistance. The students were assigned a special project to complete in the writing lab in addition to their written assignments. The tutors created additional exercises, including grammar exercises and a recommended reading list; worked one-on-one with students on their papers; assisted with teaching word processing; tracked student progress; and reported to Professor Boswell weekly. The tutors also acted as cheerleaders and coaches by sharing some of their academic experiences to help the students build self-esteem and inspire them in their academic work. They also created and conducted a successful mini-seminar on time management in which they taught their time management techniques to the students and helped them to devise a written plan for the fall semester. This entire project was conducted during the summer of 1996, with four weeks of preparation time before the eight-week course began. It must also be noted that each student in the class was introduced to word processing by a former tutor who now runs a Macintosh computer lab. Each student was also given a floppy disk to keep.

Implications

In the spring of 1997, Mr. Jamison was assigned the task of following up on student performance in English 101. He researched the grades each student received and the number of hours each student spent in the writing lab in English 051 and 101. He created charts of his findings after researching student records.

Course Grades in English 051 and English 101

English 051		English 101	
Grade	# of students	Grade	# of students
A's	2	A's	2
B's	6	B's	1
C's	3	C's	3
D's	1 (must repeat)	D's	2 (must repeat)
F's	0	F's	1
TOTAL	12	TOTAL	9*

Note: * 3 students did not enroll in 101.
2 of these students were eligible to take 101
1 was not eligible to take 101

Students receiving a "D" in English 051 or 101 must repeat the course.

Simply, 92% (11) passed 051, 82% (9) who passed 051 enrolled in 101, 62% (6) earned 101 grades of C or better. Of those students who spent more than five hours in the writing lab in 051, one failed English 101 and one earned a "D." All students earning an "A" or "B" in 101 spent more than five hours in the lab. Both students earning an "A" spent more than 15 hours in the writing lab in both classes. The data that demonstrate the relationship between grades earned in English 051 and 101 and the amount of time the student spent in the writing lab are shown in the following chart. The entry for each course is stated in terms of the grade/approximate hours spent in the writing lab.

Course Grades and Writing Lab Hours in English 051 and 101

Student #	051 grade/hours	101 grade/hours
1	C/ 13 hours	C/ 13 hours
2	C/ 13 hours	D/ 6 hours
3	C/ 13 hours	not enrolled
4	B/ 20 hours	not enrolled*
5	D/ 6 hours	not enrolled
6	B/ 20 hours	F/ <5 hours*
7	B/ 20 hours	D/ 6 hours*
8	A/ 25 hours	A/ 25 hours*
9	B/ 20 hours	B/ 20 hours
10	B/ 20 hours	C/ 13 hours
11	B/ 20 hours	C/ 13 hours
12	A/ 25 hours	A/ 25 hours*

* Student # 4 was not required to take 101 for the Dental Hygiene program (current GPA 2.6).
* Student # 6 re-enrolled in 101 in the spring 1998 semester and earned a "B."
* Student # 7 earned a Phlebotomy certificate, 2.38 G.P.A.
* Student # 8 earned an "A" in 102, then graduated in the spring of 1998, 3.02 G.P.A and received an outstanding student award at Honors Convocation.
* Student #12 (an ESL student) earned a "B" in 102.

Approximately 60% of these students remained at the college for two semesters or more. It seems that those students who spent the most time in the writing lab earned the highest grades with few exceptions. The writing lab does have an impact on students when they work on their skills and are assisted by trained tutors.

Tutor Reactions

Ms. Dankosky, who worked with the program as a student tutor, is currently employed as a professional tutor. She and Mr. Jamison compiled a list of benefits for the tutees and the tutors. Ms. Dankosky writes that the structure of the program itself was enriching for her and the students. The ACT 101 mini-grant program was arranged so that: a) each student was assigned to a tutor, b) each tutor followed the progress of the student in class, in the writing lab, and with projects throughout the semester, and c) the tutor worked with each student on a weekly (sometimes daily) basis on a variety of writing and academic issues. She found that the program enabled her to help build the confidence of developing writers in themselves and in their writing. She explains: "The rapport I had with those students was unlike any other because of the investment I (and they) had made in time, energy and commitment to their success in the course." She had the opportunity to hone her tutoring skills in identifying problem or weak areas in student writing. This helped her to guide the students in practicing those areas, which allowed many of the students to overcome their weak areas or, at the very least, to improve their writing skills. In addition, she feels that her experience in the program helped her to learn to identify learning styles and preferences and to practice strategies for teaching to the different styles. This helped her when she moved from tutoring in the writing lab to teaching in a high school classroom. Finally, she was grateful to have been able to share in the success of the students in learning to write effectively, to use constructive criticism to their advantage, and to share in a job well done.

Mr. Jamison echoed many of these sentiments, adding that he felt "a greater sense of involvement in the college community and felt a sense of accomplishment for himself and the students." He also took the students' perspective and said that they received reinforcement in "the importance of the writing lab and tutorial support and an easier transition to college" because they were introduced to "the Learning Center and support (counselors, programs, etc.) available to them early in their college careers." He also felt that the students benefited from working with former students (the tutors) who had succeeded in college.

In conclusion, our ACT 101 mini-grant program enabled us to demonstrate that undergraduate tutors can help to collaborate, to make connections, and to promote literacy in the community as well as in their own institutions. Students can and do empower other students. At-risk students do benefit from closely monitored, well-designed programs. Professor Muriel Harris, editor of the Writing Lab Newsletter notes that students need to talk about their writing with a person who will listen. Thus, all students can benefit from this approach. Each one must teach one, as the saying goes. It definitely does open doors for those who have been left behind or did not have the appropriate opportunities in the past.

Reference

Harris, M. (1995). Talking in the middle: Why writers need writing tutors. College English, 27-42.

This article was written with the consent of David Jamison & Catherine Dankosky (co-author). Both gave permission to use their names.

LEARNING STYLES: THE ROAD TO METACOGNITION

Mary Catherine Kiliany, Robert Morris College

Across the nation, community colleges with open-door policies constantly face the problem of high attrition rates because they enroll a proportionally larger number of disadvantaged students. This problem is expected to continue into the 21st century as the enrollment of this population is expected to rise. Community College of Beaver County (CCBC) acknowledged this underprepared population and committed itself to the retention of these students. In fact, CCBC's published philosophy fostered this commitment: "Thus, education is not only a process of enlightenment, but is also, and more importantly, the avenue through which individuals achieve self-understanding and self-realization" (CCBC Catalog, 1995-1996). With a view toward the training of students as independent learners, CCBC agreed to participate in this study, investigating the effects of learning styles awareness and strategy training on the self-concept and achievement of disadvantaged community college students.

Studies of multicultural students, often designated disadvantaged, make suggestions for increasing achievement:

- Responding to how students learn significantly increases their achievement and attitude test scores;
- No learning style characteristic is better or worse than any other;
- All students can learn—but they need to be taught to their individual learning style strengths if they are to master new and difficult academic material (Dunn, 1993, p. 30).

Years of detailed studies provide direction for those schools or instructors who wish to address "how to teach individuals through their style or how to teach them to teach themselves by capitalizing on their personal strengths. Learning style, then, is the way each learner begins to concentrate, process, and retain new and difficult information" (Dunn, Shea, Evans, & MacMurren, 1991, p. 94).

In a study of 10 secondary schools implementing learning styles-based instruction (Dunn & Griggs, 1989), the data showed that all schools demonstrated increased achievement for all student groups with no additional monetary expense. In addition, teachers reported that they felt that their instruction with learning styles was more rewarding. In fact, several teachers indicated that the change in school philosophy had countered the disillusion that they had begun to feel about their profession.

Learning styles awareness and academic achievement have been positively linked in a study of community college students (Cook, 1991). This study found that students who were aware of their own learning styles demonstrated significantly higher achievement.

Awareness of individual styles and review using study tips related to these styles was shown to increase academic success. Since college instructors show a reluctance to change their teaching styles, Cook (1991) states that college students themselves must adjust.

In a study of affective responses and community college students (Easton, 1984), "students who did as well or better than they wanted to, or expected to, displayed increased academic self-concept, and raised their expectations for themselves. Students who did not meet their [own] criteria for success showed no changes in academic self-concept but adjusted their criteria for success" (p. 189). Over the short term, less successful students adjusted their criteria for success but not academic self-concept; however, over the long term, these students lowered their self-concept. Enhancing self-concept influences student achievement and commitment to learning. Consequently, if disadvantaged students are neglected, "they will join the failures and dropouts, experiencing not only academic failure, but perhaps also the negative self-concepts that they avoided over the short term. . ." (Easton, 1984, p. 190).

Of 74 disadvantaged new students identified through CCBC's ACT 101 Program, 10 participated and were designated the control group. Of 54 disadvantaged new students identified through the Office of Supportive Services (OSS), 10 participated and were designated the experimental group. At the semester's start, the researchers collected placement test scores of all the subjects, converting them into predicted GPA's. In addition, all subjects were given a self-rating instrument. At the semester's end, the subjects' earned GPA's were collected, and the same self-rating instrument was administered.

Two main elements of the experimental treatment encouraged metacognition within the students. Metacognition entails two types of knowledge. Knowledge about cognition, "knowing what you know," helps a learner to assess how personal traits enhance or detract from new learning situations. Also, knowledge about regulating cognition, "knowing how you know," consists of planning strategies to solve problems, monitoring the effectiveness of problem solving, testing outcomes, and revising and evaluating learning strategies. Without this strong foundation, these underprepared students cannot perform higher-order cognitive tasks or become independent learners. First, students diagnosed their learning styles through three inventories: (a) the Myers-Briggs Type Indicator, a personality inventory (Lawrence, 1986), (b) the Multiple Intelligences Inventory for Adults (Armstrong, 1994); and (c) the Learning Styles Identification Exercise (Edmonds School District No. 15). Second, an OSS specialist provided opportunities for continuous self-reflection and self-evaluation.

The OSS specialist provided strategy training for identified learning styles relevant to each experimental subject. The students discussed learning strategies with their specialist and/or other students in small groups. Primarily, these dialogues revolved around encoding strategies. Two kinds of rehearsal fulfilled different encoding tasks. In

maintenance rehearsal, they examined how to remember material for courses by "hanging" more sophisticated information onto basic information previously stored in long-term memory. In elaboration, the students offered their personally preferred strategies for visualizing or verbalizing new information. In organization, students shared many different ways of arranging information. Those students who had never applied outlining, concept-mapping, and other strategies to sort new information experimented until they found the best organizational tools for them.

In addition, students addressed retrieval strategies. Students often recognized a difference between recall (such as for an essay test) and recognition (such as for a multiple-choice exam). They discussed different strategies used for retrieval in each case. Mainly, subjects tended to encode information differently if they knew in advance that the instructor demanded recall or recognition.

Students were encouraged to utilize information discovered in their learning styles awareness throughout strategy training. For example, after students identified their intellectual strengths and weaknesses, the OSS specialist suggested techniques geared toward students' stronger intelligences. Then, the OSS specialist guided the students to use their strongest modes of processing information: either visualization, written word, listening, or activity. Since the OSS administered the treatment, the specialist provided subjects with intensive personal contact, reinforcing positive experiences. Also, experimental subjects were able to form a group identity, encouraging group members to support one another in their educational experiences.

The treatment's most positive aspect was its focus on students' strengths instead of weaknesses. Students learned to eliminate ineffective strategies in favor of personally effective strategies. Armstrong (1994) noted four consequences of utilizing multiple intelligences theory, forming his strongest support for using MI theory with special needs students:

- Change in role from learning specialist to consultant.
- Greater emphasis on identifying students' strengths.
- Increased self-esteem of disadvantaged students.
- Increased understanding and appreciation of students (p. 144).

With increased metacognition and enhanced self-esteem, disadvantaged students have a more equitable education.

Baker & Steiner (1995) state that "Disadvantaged students who are instilled with a sense of opportunity, vision, and community will tend to succeed even though their prior academic performance may be unpromising" (p. 227). Pogrow (1995) insists that programs must be specialized. "Contrary to popular myth, the most effective interventions are those that specialize in particular grade levels and types of students—as opposed to those that pretend to be for everyone. This is especially true for interventions designed for educationally disadvantaged students" (p. 21).

Non-participation proved a major liability, most notably to the self-concept aspect of the study. Research about the disadvantaged expounds upon the non-participatory nature of these students. Kerka (1986) states that "The predominant barriers hindering the participation of this group are lack of self-confidence, low self-esteem, and negative attitudes toward education, compounded by language or literacy problems." By the time at-risk students reach post-secondary education, they often feel antagonistic toward the concept of "school" and display their refusal to "consort with the enemy" through non-participation in any school activities, functions, or special programs.

Achievement results were evaluated using a t-test to assess any significant difference between the experimental and control groups: T=-0.1773 with critical value of 2.12; the difference was not significant. T-tests were also performed on the groups to determine any significant difference between each group's predicted and actual GPA's. For the experimental group, t=0.37 with critical value of 2.365, and for the control group, t=1.1 with critical value of 2.262, so the differences were not significant.

This study's one-semester time frame precluded any notable changes within subjects receiving treatment. Combating ingrained distrust in the educational system and low self-esteem requires more than two or three months of support services. Kerka (1986) insists that the "Ways of overcoming the powerful deterrents of poor self-concept and negative attitudes toward education include providing educational opportunities with low levels of risk or threat, reinforcement of self-concept, more positive personal experiences early in the educational career, and the support of adults' significant others."

Despite a lack of significant results, the experimental subjects' reactions to treatment were uniformly positive. Subject E2 stated, "The most interesting thing for me is not only how this helps me focus my study, but how it has helped me understand my personal relationships with my husband and kids." Subject E5 stated, "I never knew before that just taping my notes could help me study." One underprepared subject started his/her first semester without any knowledge of what to do or where to go and how to take notes, study, or take a test. As the student scheduled for the next semester, he/she informed the OSS specialist of all his/her learning needs, including a book list to be taped and sessions to be scheduled with the specialist. CCBC's OSS feels that the experimental subjects grew more independent, confident, and knowledgeable about their learning.

References

Armstrong, T.(1994). Multiple intelligences in the classroom. Alexandria, VA: ASCD.

Baker, M. R. & Steiner, J. R. (1995, March). Solution-focused social work: Metamessages to students in higher education opportunity programs. Social work, 40, 225-232.

Community College of Beaver County. (1995-1996). Catalog.

Cook, L. (1991). Learning style awareness and academic achievement among community college students. Community/junior college quarterly of research and practice, 15, 419-424.

Dunn, R. (1993, March/April). Learning styles of the multiculturally diverse. Emergency librarian, 20, 24-32.

Dunn, R. & Griggs, S. A. (1989, September). Learning styles: Quiet revolution in secondary schools. The clearing house, 63, 40-42.

Dunn, R.; Shea, T. C.; Evans, W. & MacMurren, H. (1991, November). Learning style and equal protection: The next frontier. The clearing house, 65, 93-95.

Easton, J. Q. (1984). Affective responses of community college students to self-selected criteria of success. Community/junior college quarterly of research and practice, 8, 185-191.

Kerka, S. (1986). Deterrents to participation in adult education. Overview. ERIC Digest No. 59. [On-line]. Available http://ericae.net/db/digs/ed299455.htm

Lawrence, G. (1986). People types and tiger stripes: A practical guide to learning styles. Gainesville, FL: Center for Applications of Psychological Type.

Learning styles identification exercise. Lynnwood, WA: Edmonds School District No. 15.

Pogrow, S. (1995, February). Making reform work for the educationally disadvantaged. Educational leadership,52, 20-24.

SUPPLEMENTAL INSTRUCTION: VARIATIONS ON THE BASIC MODEL

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Description of the Basic SI Model

Supplemental Instruction (SI) provides an efficient and convenient opportunity for students to meet both academic and social agendas. Student groups convene on a voluntary basis at times convenient to a majority. These groups typically demonstrate heterogeneity with respect to academic and demographic characteristics. The informal study groups begin meeting during the first week of class and continue throughout the semester. A student leader; having previously studied that subject, earned high marks, and received the approval of the course professor; assists those who have enrolled in the targeted class. Before meeting the class, the SI leader participates in a structured training and supervision program designed to introduce the leader to the SI program and the use of collaborative learning techniques.

The SI leader attends every class. During SI, the leader helps students by facilitating discussions focused on the concepts, requirements, and other components of the course that the students may find daunting. The leader avoids re-lecturing to students, preferring to use a variety of small-group learning strategies designed to enhance study and reasoning skills. Guided by the SI leader, students engage in productive dialogue about course concepts and assignments.

In the past ten years the SI model has been modified and enhanced to serve a wider number of purposes (e.g., learning communities, support of distance learning, integration of learning with technology). While it was initially developed in 1973 at UMKC to stem the tide of health-science school dropouts, variations of SI serve other needs of students and faculty members. More than 1,500 faculty and staff members from nearly 900 colleges have attended SI workshops conducted by UMKC staff and Certified Trainers. Reports from workshop attendees indicate that they often adapt the SI model to meet specific institutional needs. Following are several reported modifications to SI. Other examples are available through the SI homepage (http://www.umkc.edu/cad/si.htm).

Video-based Supplemental Instruction (VSI)

Data suggest that the SI experience can move a student's performance from below average to average, from average to above average, from above average to excellent. In the lower ranges of performance, it appears that participation in SI can elevate a student's grade from sub-marginal to below average. However, at UMKC, as at other universities

practitioners have found that there are students for whom SI offers insufficient support. Typically, these students fall at or near the bottom of the fourth quartile in terms of entry level scores and/or high school rank. SI is not scheduled often enough, nor does it have sufficient structure, breadth, or depth to meet their needs. On other campuses these students would be tracked into developmental courses, which is not an option at UMKC. UMKC, like a growing number of other institutions, is mandated not to offer traditional developmental education courses. It was necessary to "mainstream" the beneficial elements of developmental activities into graduation-credit courses.

In 1994, the National Education Commission on Time and Learning (NECTL) issued its findings regarding learning improvement. "Our schools and the people involved—students, teachers, administrators, parents, and staff—are prisoners of time, captives of the school clocking calendar" (Kane, 1994, p. 7). NECTL announced its first recommendation: reinvent schools around learning, not time. While knowledge doubles every few years, the academic calendar and number of class periods has remained fixed for over a generation.

Differences in required learning time increase as the slower students progress through the curriculum. "A student who begins a learning sequence by performing poorly on the first step performs even more poorly on the second step because he lacks some of the prerequisites. Without extra time to restudy these prerequisites, he misses more prerequisites at each successive step, becoming progressively farther behind. So the academically rich get richer and the academically poor get poorer" (Arlin, 1984, p. 67).

To retain the target student population, UMKC developed an information delivery system called Video-based Supplemental Instruction or VSI© (Martin & Blanc, 1994). VSI differs from SI in several respects. The students are enrolled in required, core curriculum courses. The course professor has recorded all didactic presentations on videotape for use with underprepared students as well as other students who opt for this highly interactive way of learning. Instead of attending the professor's regular lecture classes, students are enrolled in the video section of the professor's course. Students in both sections are held to the same performance standards. Specially designed facilitator and student manuals accompany each course.

VSI students, led by a trained facilitator, start and stop the videotaped presentation at pre-determined times and, in addition, whenever they have a question or want clarification. Professors design the video presentations to include periodic small group assignments to insure that learning has occurred before introducing the next concept. Students complete these tasks under the supervision and with the guidance of the facilitator. When the taped lecture resumes, the professor models how he or she thinks about the assigned tasks. In this way, the students have time to construct and verify their understanding as well as compare their own thinking to that of the expert. As one student said, "When I sit in regular classes, I don't have to pay attention and even when I do, I'm often lost. In VSI I have to pay attention all the time, and when I'm lost, my friends help me figure things out."

For a three credit-hour course, students enroll in an 8-9 hour block of time spread throughout the week. Students receive regular credit for the core curriculum course and, in some circumstances, three additional hours of credit for the reading, writing, critical thinking, and study skills that are embedded in VSI. In this way, VSI integrates much of what is best about developmental education directly into the core curriculum. Students develop needed competencies as they earn credit toward their degrees. Student success is largely a matter of efficient time on task combined with effective guidance.

VSI captures and manages what we see as the great, untapped resource on all our campuses: the students' study time. Only in retrospect do students tell us that they learned how to study more effectively. Few recognize that they engaged in developmental education; skill development is so closely tied to the content that they don't perceive a separation (Martin & Blanc, 1994).

In addition to being used with the UMKC college students, VSI is used with medical students who are *studying* for their national board examinations in the basic and clinical sciences. At present, 26 rural Missouri high schools are using VSI for dual high school/college credit. Students on average earn grades that exceed those of the regular campus lecture section. Reports from the field maintain that VSI courses provide a bridge program for college bound students more powerful and satisfying than standard dual credit courses.

Use of SI for Faculty Development and Renewal

In addition to serving students to increase their retention and understanding of course material, the SI program has been effectively used for faculty development and renewal. SI always provides an opportunity for faculty development. Some programs have added features to make faculty development a central goal of their SI program. SI is offered only when the teaching faculty member understands and supports the model. SI sessions are established at the very beginning of the academic term. Although SI leaders do not report on individual students, faculty members are encouraged to inquire about how students as a group are grasping and grappling with course content. This feedback loop allows faculty members to learn, often for the first time, how students approach the assigned task and incorporate that knowledge into future teaching.

A natural extension of this informal feedback loop is to increase the likelihood of faculty receiving and acting on feedback by formalizing the communication between faculty and SI leaders and creating an opportunity for faculty to reflect with colleagues on what they have learned. Development ensues when professors receive feedback from SI leaders regarding student comprehension and, its flip side, confusion (Marshall, 1994; Wolfe, 1990). It is often difficult for students to reveal through their questions what they perceive to be their own ignorance. Equally difficult for some is the process of questioning. Students fear their queries may be taken as criticism by one who has carefully crafted and delivered the lectures, one who (in addition) determines their grades and, ultimately, promotion and graduation.

Marshall (1994) reported on the use of SI for faculty enrichment at Salem State College. The Salem scheme permitted frequent interaction between faculty members and SI leaders through joint participation in SI leader training workshops, monthly meetings to discuss pedagogical issues, and weekly meetings to address common content issues. Faculty members reported numerous changes in their behavior and improved attitudes. Although this aspect of SI in faculty development was studied extensively at Salem State College, the use of SI as a feedback mechanism leading to faculty development is more frequently used in Australia and the United Kingdom than in the U.S.

A more direct way that SI practices impact the curriculum is when faculty members elect to attend portions of the SI leader training workshops, learning how to incorporate SI strategies into regular class activities (Martin, Blanc, & Arendale, 1994). Activities recommended to SI leaders have general utility in the classroom: be certain that students have the big picture of the course throughout the academic term; illustrate the process of solving problems and thinking about issues; refer to the syllabus throughout the academic term; include an early, low impact exam to provide feedback regarding comprehension before the first major exam; organize course content through visual tools (e.g., matrix organizers); and be explicit about expectations for excellence.

Wolfe (1990) describes the use of SI at Anne Arundel Community College (Arnold, MD) to provide services for both students and faculty members. Some faculty members serve as SI supervisors. A faculty member who agrees to serve in this role is called a "Faculty Mentor." An important feature of this program is that the faculty member supervises SI leaders in areas outside the faculty member's content specialty. The Faculty Mentor focuses on general learning skills, and not on critiquing the content of the instructor for whom the SI is being offered.

High involvement of faculty members is a common trait of SI programs in other countries. In addition to the benefits previously mentioned, Australian faculty members report the following: increased rapport with students, participation in a professional organization through their membership in national and international SI networks, increased recognition from their colleagues regarding learning improvement for students, additional opportunities to obtain grant funds for SI-related projects, and increased satisfaction with their teaching role (Gardiner, 1996).

Conclusion

During the 1998-99 school year, SI will celebrate its 25th anniversary. SI was originally created as a response to institutional need (i.e., stemming the tide of student withdrawal from UMKC graduate health science programs). The model has continued to be adapted for a variety of purposes through changing needs at UMKC and hundreds of adopting sites throughout the world. As a field-based program, SI and its variations must incorporate new pedagogy, effective practices, and instructional technology. To stay a vibrant and effective model, SI must continue to adapt itself to meet the local needs of students, faculty members, administrators, community members, and other stakeholders of education.

References

Arendale, D. (1998). Internet Homepage for the National Center for Supplemental Instruction [On-line]. Available http://www.umkc.edu/cad/si.htm

Arlin, M. (1984). Time, equality, and mastery learning. Review of Educational Research, 54 (1), 65-86.

Blanc, R. A., & Martin, D. C. (1994). Supplemental instruction: Increasing student performance and persistence in difficult courses. Academic Medicine: Journal of the Association of American Medical Colleges, 69 (6), 452-454.

Burmeister, S. (1996). Supplemental instruction: An interview with Deanna Martin. Journal of Developmental Education, 20 (1), 22-24, 26.

Gardiner, R. (1996). Supplemental instruction: A cost-effective, student-centered collaborative learning program. Paper presented at The Second International Open Learning Conference held in Brisbane, Queensland, Australia, December 4-6, 1996.

Kane, C. M. (Ed.). (1994). Prisoners of time research: What we know and what we need to know. Report of the National Education Commission on Time and Learning. Washington, D.C.: U.S. Government Printing Office.

Marshall, S. (1994). Faculty development through supplemental instruction. In D. C. Martin, & D. Arendale (Eds.), Supplemental instruction: Increasing achievement and retention (pp. 31-40). San Francisco: Jossey-Bass.

Martin, D. C., & Blanc, R. A. (1994). Video-based Supplemental instruction: A pathway to mastery and persistence. In D. C. Martin, & D. Arendale (Eds.). Supplemental instruction: Increasing achievement and retention (pp. 83-92). San Francisco: Jossey-Bass.

Martin, D. C., Blanc, R. A., & Arendale, D. R. (1994). Mentorship in the classroom: Making the implicit explicit. Teaching Excellence, 6 (1), 1-2.

O'Donnell, L. E. (1996). Inclusion for learning disabilities. Technology with learning variables research and supplemental instruction. International Journal of Special Education, 11 (2), 27-32.

Wolfe, R. (1990). Professional development through peer interaction. The Journal of Professional Studies, 14 (1), 50-57.

MATH SI @ IUP: A SHORT & SWEET FIRST REPORT

Paul Hrabovsky, Indiana University of Pennsylvania

Introduction

Math Supplemental Instruction (SI) was initiated at Indiana University of Pennsylvania (IUP) during the summer session of 1996 through our Developmental Math Course, LC 095: Introduction to College Math II. Improved grades and scores were noted and SI was integrated into all LC 095 sections beginning with the summer session of 1996. With the cooperation of the Mathematics Department and support from administrators, SI was piloted in select sections of entry-level math courses. The pilot program was continued and expanded in the spring semester of 1998.

General Findings

With each refinement of the Math SI Program, the student success rate seems to improve. However, there seem to be significant institutional differences from statistics reported at the national level. Most notably, a grade of "D" seems to be acceptable to certain students and the ability to withdraw from a course ("W" grades) is less restrictive and timely.

The criterion used to evaluate SI with LC 095 students includes two factors: grades and Basic Algebra (BA) Placement post-test scores. The LC Math standards require LC 095 students to score >9 on the BA Placement post-test or acquire a grade >D. In 1996, approximately 17% of the students in LC 095 during the summer session did not meet those standards. In 1997, only 5% of the LC 095 summer session students did not meet those standards, even though the grading system had been made more difficult than previous years.

Five math courses were targeted for the fall 1997 semester. Criteria for selection included multiple sections taught by the same instructor, instructor interest and support of SI, availability of SI Leaders for the course (SI Leaders are the students that deliver SI), and course eligibility for SI (at least 30% "D, F, W" rate). Immediately noted: the "W" grades for sections with an SI Leader present were fewer (27% for no SI vs. 16% for SI sections). Reviewing cumulative grades for the sections involved led to the observation related to "D" grades. Looking at a failure rate ("D, F, W" grades) that includes "D" grades demonstrates a slight difference between SI and non-SI student grades within the SI sections: 48% for SI and 53% for non-SI groups. (It should be noted that students attending only one SI session are excluded from both groups.) However, when failure is defined as "F" and "W" grades, the ratio changes dramatically: 19% for SI and 42% for non-SI.

Additional Study

The plans for the spring semester include an expanded impact on students. The data from the fall study indicates that the presence of an SI Leader in the section is more effective

on student results than student attendance at SI sessions. The question is: "What level of presence is necessary?" For the spring, SI leaders were placed in multiple sections of courses whenever possible. Potentially, one SI Leader could attend up to four different sections of the same course and deliver SI sessions that include students from all of the sections attended. Scheduling permitted several sections to be available for such study. Seven different math courses with a total of 19 sections were served with SI during the spring semester. Results have not been received as of this date.

Homework Helper sessions continue to be popular with students at IUP. A similar study will be performed during the 1998 Academic Year. Initial observations seem to indicate that these sessions are not effective in improving grades.

Program Improvements

"If you build it, they will come," but students need to come earlier and more often for the program to be maximally effective. Major emphasis will be placed on early intervention and continued attendance beginning the summer of 1998. We hope to involve students during the first weeks of classes rather than after their first signs of potential failure. We have the results to share with students as to the effectiveness of SI and will use that information during initial in-class contacts between the SI Leaders and their peers.

Experience with the program confirms the value of continuous training and supervision of SI Leaders. Focused training topics were best received during past training sessions and will be continued in the future. Weekly meetings and an intense training session prior to the start of classes will continue. Open-ended discussion sessions will be included in the weekly training to permit experienced SI Leaders to share their expertise with novices.

Conclusions

SI provides students with a means to become effective in their studies. Supervisor training is necessary early in the development of an SI program. SI works.

CORRELATING THE LASSI WITH DEVELOPMENTAL STUDENTS' ACADEMIC PERFORMANCE

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Purpose

Since 1985, a freshman-year study skills course, titled Learning Strategies, has been taught at a large state-supported university. This course (one graduating credit) focuses on students' learning how to learn and covers such topics as time management, listening and note taking, text reading, preparing for exams, and goal setting. Each fall approximately 350 developmental freshman students take the course, along with a full complement of content-area courses. However, consistently 40-50% of these students are on academic probation at the end of fall term. In an effort to boost student performance during the crucial fall term, a supplemental laboratory experience was attached to the Learning Strategies course in which small groups of students met weekly with the Reading/Study Skills Coordinator for more individualized and intensive work on integrating strategies with content. Since the number of students able to attend these small-group sessions was limited, the Learning and Study Strategies Inventory (LASSI), was used to screen those students most in need of the supplemental lab instruction.

The LASSI is a self-report instrument assessing students' use of study strategies as defined by ten scales (attitude, motivation, time management, anxiety, concentration, information processing, main ideas, study aids, self testing, & test strategies) and is described as both a "diagnostic and prescriptive measure" focusing on thoughts and behaviors "that can be altered through educational interventions" (Weinstein, 1987, p. 2). If certain scales were highly predictive of academic performance, then supplemental lab instruction would be offered to those students scoring lowest on these predictive scales.

Therefore, the purpose of this study was to demonstrate which, if any, of the ten scales of the LASSI were able to predict academic performance, as measured by students' cumulative quality point averages at the end of their freshman year.

Design

Student data was collected for two academic years: 1994/5 and 1995/6. A multiple regression analysis was used ($p<.01$) with backward, forward, and stepwise selection procedures. The criterion, or dependent, variable was students' *cumulative quality point averages* (CQPA) at the end of spring term of their freshman year. The predictor, or independent, variables were the ten scales of the LASSI: *attitude, motivation, time management, anxiety, concentration, information processing, main ideas, study aids, self testing, & test strategies*. For both years an analysis was done for the LASSI pretest, administered to students at the beginning of their freshman year, and LASSI post-test, administered at the end of their freshman year.

Results

For each of the four sets of data, results are reported for the *significant* predictor variable, or combination of variables, remaining in the multiple regression equation following the backward, forward, and stepwise selection procedures:

Correlation of LASSI Scales & CQPA

Year	N	LASSI Scale(s)	Beta	R	R2	F
1994/5 pre-test	158	**Motivation**	.26	.26	**.07**	11.61
1994/5 post-test	238	**Motivation**	.27	.39	**.15**	21.47
		Time Management	.15			
1995/6 pre-test	204	**Motivation**	.33	.43	**.18**	14.74
		Time Management	.24			
		Attitude	-.24			
1995/6 post-test	124	**Motivation**	.43	.43	**.18**	27.41

$p < .01$

For the pre-LASSI, given at the beginning of fall term 1994, only the Motivation score had a significant correlation ($p<.01$), although this correlation was low—only 7% of the variance in CQPA at the end of freshman year could be predicted by the Motivation score.

The correlation for the post-LASSI scores, given at the end of spring term, 1995, was somewhat higher: 15% of the variance in end-of-year CQPA could be predicted by a combination of Motivation and Time Management ($p< 01$).

Both the pre- and post-LASSI measurements for the 1995/6 academic year indicated that 18% of the variance in end-of-year CQPA could be predicted ($p< 01$). However, the combination of predictor variables differed. For the pre-LASSI, given at the end of summer term, the predictors were a combination of Motivation, Time Management, and Attitude; Attitude having a negative correlation. For the post-LASSI, given at the end of spring term, only Motivation was a predictor.

Conclusion/Discussion

Overall, the LASSI had a low prediction rate; that is, most of the ten scales were not correlated to freshman students' end-of-year CQPA. Of those scales that did demonstrate some significant correlation, Motivation was the only one to appear at the conclusion of

all four correlations; Time Management appeared in two. As a result, the researcher did use students' scores for the Motivation and Time Management scales as a way to screen for the supplemental lab instruction for the 1996/7 year—those students scoring below the 50% on either of those scales received the extra small-group instruction. This instruction focused on techniques for improving how students managed their time, such as making wise choices, deciding when and where to study, managing free time, and using schedules; and improving their motivation, such as setting personal goals, identifying internal and external rewards, and choosing strategies that lead to some level of success. Having worked many collective years with freshman developmental students, the researcher and her colleagues have observed that both motivation and time management *do* play crucial roles in students' academic success or failure and, therefore, were not surprised by the results of this study.

Since the LASSI is a self-report instrument in which students rate their own behaviors and attitudes, one might reason that the post-LASSI would be more predictive than the pre-LASSI, as illustrated by the 1994/5 year. After two full terms of college-level work students might be able to more accurately judge their learning and study strategies, thus making the post-test a more valid assessment of their skill level. However, this pattern did not hold for the 1995/6 year; the 18% of variance was the same for both the pre- and post-test. The researcher will analyze data for the 1996/7 academic year similarly in order to add to results of this study.

A final point: the LASSI was not normed with developmental student populations (Ley & Young, 1996; Nist, et al., 1990), and the results of this study might highlight this "oversight" on the part of the test developers. This lack of normative data for developmental students, along with the test's relatively low value as a predictor and its high cost (approximately $3.00 per test), all contributed to the researcher's department's decision not to continue to administer the LASSI to incoming freshmen in their developmental program.

References

Ley, K. & Young, D. 1996. Motivation in developmental students. Unpublished paper.

Nist, S., Mealey, D., Simpson, M., & Kroc, R. 1990. Measuring the affective and cognitive growth of regularly admitted and developmental studies students using the Learning and Study Strategies Inventory (LASSI). Reading Research and Instruction, 30 (1), 44-49.

Weinstein, C.E. 1987. LASSI User's Manual. H & H Publishing, Clearwater, FL.

DESIGNING A PEER TUTOR TRAINING PROGRAM

Ann McLaren, Penn State University, University Park

Nationally, learning support services have developed out of programs created to serve students who lacked the prerequisite skills for college-level work. Students who faced special barriers—educationally disadvantaged or specially challenged students—often were not successful in traditional classroom settings. Through experience, trial and error, and a growing body of professional literature, learning center personnel created programs and services that helped at-risk students succeed. The programs and services developed in learning centers for at-risk students soon proved to be equally valuable for students who wanted to be the best they could be.

What was once the domain of learning centers alone—emphasizing process as well as content, collaborating with other learners, and supplementing classroom instruction with technology—is becoming an integral part of the undergraduate experience at many colleges and universities. Activities once found only in learning support programs are being developed as cutting-edge curricular innovations across the college or university. Curricular innovations and long-standing learning center practices are meeting in the mainstream curriculum. Perhaps nowhere is this more evident than in the realm of peer tutoring and the general use of peers to enhance the undergraduate education experience.

Tutoring programs, with their carefully selected and trained cadre of peer tutors, will continue to be a valuable resource for students seeking extra help with their courses. As other campus programs recruit undergraduate students to be peer mentors, discussion group facilitators, or peer educators, the training program provided by a tutoring center will become an important institutional resource.

Participants who attended this workshop identified the primary barriers to creating a successful tutor-training program:

- The need to hire new tutors one at a time throughout the semester.
- Tutors' lack of commitment and sporadic attendance at training.
- The tutoring program staff has limited time to devote to training.
- Frequent turnover among peer tutors, especially at two-year institutions, which creates a greater demand on training programs.
- The difficulty in engaging experienced tutors in training designed for new tutors.

In order to have successful training, programs need to place a high priority on the quality of their peer-tutoring program. Defining the mission, goals, and philosophy of the tutoring program will help define the need for an effective training program. For example, is the primary reason for hiring peers because they are less expensive than professionals, or does the program's philosophy value the contributions peers make to the learning environment? Once the need for training has been established, it will be easier to

communicate to potential peer tutors the importance of preparing for the work they are about to undertake.

The tutoring program supervisor should keep the following ideas in mind as s/he designs a training program for peer tutors:

1) *Make training systematic and thorough, but also flexible.* A training package designed in modules or in a format that allows students to complete the training requirements in a variety of ways will increase the likelihood that all tutors will receive adequate training.
2) *"For credit" is one way we communicate to students that an activity is academic, rigorous and worthwhile.* If quality is important, then training is important. Carefully consider opportunities to offer tutor training for credit.
3) *Seek opportunities to collaborate with others at your institution in providing tutor training.* Are there other programs which employ peer tutors, mentors or leaders? Working together can create a more visible, comprehensive training program.
4) *Consider commercial packages either as the primary training vehicle or as an augmentation to your training program.* When commercial packages support your institution's peer tutoring philosophy and goals, they can be great aids in organizing your training program. However, beware of programs that promise to provide training for tutors in the absence of interaction with other peer tutors or instructors.
5) *Know what outcomes you expect from training and evaluate your training program.* Students are more likely to participate in training if they understand what skills they need to develop, in addition to their content expertise, to be effective tutors. Administrators are more likely to support your program if they understand and support your goals. You are more likely to have training approved as a "for credit" activity if you have clearly-identified, measurable objectives.

You may find these web-sites interesting:

http://hakatai.mcli.dist.maricopa.edu/events/crla/keynote.html

http://www.pvc.maricopa.edu/lac/tutor_training.html

http://www.dcc.edu/~crla/tutorcer.html

http://www.d.umn.edu/tutoring/Become/become.html

http://wrac.mtsac.edu/wrac/t3tutors.htm

HELPING STUDENTS CONQUER MATH ANXIETY

Rosemarie Gaetano, Carlow College

Introduction

The conquering of math anxiety is a process that takes time. It begins with helping students understand how the anxiety was created in their lives. The students need to come to an understanding that the fear of math may be the primary cause of lack of success rather than an inherited inability. There are no "math genes." The person helping students will need to act as a coach by refocusing them on how to overcome the fear when setbacks happen. Students and coach must also realize that the fear was not built up in one day and that one workshop is not going to get rid of it.

What Are the Signs of Math Anxiety (An Inventory)?

To get a sense of how extensive the fears are and how they are manifested, students can be given a TRUE/FALSE inventory. The questions then lead to discussion of how they show fear exists and what the causes are.

The following is a sample of the sixteen questions that I have used in my Math Anxiety workshops along with the discussion that goes with each.

---*I am always extremely careful and neat when I do mathematics.* This may be a sign of math anxiety because the person is afraid of messing up the problem if she is not being extra careful. The person is not relaxed. However, if a person does everything carefully and neatly, then this is a personality trait and not a sign of math anxiety.

--*Very often I ask the instructor for the correct procedure or answer to a math problem.* Asking for help is not a sign of fear. The "very often" part may be. People who fear math or feel inadequate doing it do not venture out on their own without someone leading them each step to take.

---*I prefer to answer mathematics questions quickly.* Most people who are afraid of math have developed an incorrect concept that all problems should be done in rapid fire fashion. This has often been caused by experiences with grade school teachers having students do problems or times tables against a ticking timer. Remember a problem that is more involved than reciting the times tables **should** take longer. Thinking requires time. A several-step procedure needs to be written down step by step.

---*I get angry when I don't get a mathematics problem correct the first try.* Students who feel this way are putting too much pressure on themselves. We allow ourselves to make mistakes in every other area and not feel dumb. Why don't we give ourselves the same freedom in math?

---*The only thing that is important in mathematics is getting the correct answer.* Mathematics is defined as problem solving. This is a **process**, not an end result. Because the students' focus has been on arriving at some magic number instead of on the thought processes involved in getting there, mathematics has become a hit or miss endeavor.

---*When I do well in mathematics, it is mostly good luck.* The first step students need to take in overcoming the fear of math and believing they can do it is to recognize their achievements rather than belittling them. Say "Hey I did that! I had the correct thoughts."

---*I am a failure if I don't get a very high grade in mathematics.* Why is your whole self concept based on how you do in one subject? What makes math so special that it determines your worth?

---*Mathematics is by far the most important subject in the school curriculum.* This is putting mathematics up on a pedestal that it doesn't deserve. And when it is up on that pedestal, it seems too high for a person to be able to attain success with it. Bring math off the pedestal and make friends with it.

---*I have a brother or sister who is much better in mathematics than I am.* A lot of anxieties surrounding school subjects get started as a need to compete with a sibling, especially an older one.

---*I have always been an inferior mathematics student.* Being able to achieve success often starts with one's self-concept. Stop classifying yourself as inferior and start focusing as someone who sometimes takes a little longer to get it.

Having any one of these traits does not signify that someone has math anxiety. It is the combination of having several that indicates an anxiety may be present.

<u>Source of Anxiety</u>

Giving students stories of how others acquired math anxiety helps them to see how they themselves may have acquired it. Knowing where it came from is the first step to understanding their anxiety. The purpose here is not to lay blame.

Students should be directed to recognize that most of the situations that created the anxieties had someone else in control of their math learning. The first step then is to take control of their math learning. Find out what it takes to succeed and follow that path regardless of the teacher's teaching style or what other students in the class are doing.

Where Do We Go from Here?

The following is a list of what students can do to overcome math anxiety. The person working as their coach can help them through these.

1. Break the myths. You do not have to be super smart to understand math; women **can** do math; you were not born with a total absence of math ability.

2. Recognize that math anxiety, and not dumbness, caused lack of success in math.

3. Address gaps in students' math knowledge before students take higher level math courses. If students do not do this, they are just setting themselves up for more failure.

4. Assess what their learning style is and what time of day they are most attentive. Their study strategies should reflect this. Also students will need guidance on how to study for a math course. Leaving students to maintain the same study habits that led to failures will not help them much. Get them connected with tutoring services, but make sure these services are treated as an aid to learning and not as the sole reason they learned or as something that they can't possibly function without. It's OK to need help, and it is the wise person who seeks it. But taking control of your learning means not being totally dependent upon others.

5. Stress to the students that the anxiety was not created in one day and that it will not be gotten rid of in one day. Give the students pep talks. Congratulate them on their daily successes. Make sure they recognize those successes are a result of their own hard work and efforts.

Conclusion

These are some of the ways to help students deal with math anxiety. The main way to help them is to turn their self-concepts around from "I can't" to "I'll try" to "I can." They also need to feel the control is with them, not with others.

References

Arem, C. (1993). Conquering math anxiety: A self-help workbook. Pacific Grove, CA: Brooks/Cole.

Hackworth, R.D. (1982). Math anxiety reduction: A workbook. Clearwater, FL: H&H Publishing.

WANT TO THINK LIKE YOUR PROFS (WHEN THEY'RE WRITING YOUR TESTS)?

Carolyn Wilkie, Indiana University of Pennsylvania

An effective instructional strategy I have used since 1978 is to help students prepare for tests by using a modification of the *Comprehension Hierarchy*, originally presented by Harold Herber (1970) in *Teaching reading in content areas.* I have taken liberty with Herber's typology so that my students can more readily understand and use it. It's an alternative to teaching students to use the more cumbersome Bloom's taxonomy, which many professors use when developing their tests.

Herber's (1970) design has three levels -- the LITERAL, the INTERPRETIVE, and the APPLIED. Here's a brief description of each level, as I teach them:

Literal (L): This is the most basic level. It's the level at which we REMEMBER information, so it involves recognizing and recalling main ideas, supporting details, and explanations, sequences, and examples. It also includes the ability to summarize or paraphrase information. We're interested in getting and recalling the information at this level of comprehension. Memorizing is included in this level, but it's just a start. We can think of this level as focusing on the 5 W's -- who, what, when, where, and why. (Bloom's Knowledge & Comprehension levels are generally comparable to the Literal level.)

Interpretive (I): This is the THINKING level, and it's a step beyond the remembering level. It involves thinking about the information so you can *manipulate* it in some way; ex., translate & interpret, draw conclusions and state relation-ships, break it down into parts, think of your own examples, infer outcomes. (Bloom's Comprehension, Application, & Analysis levels are roughly comparable to the Interpretive level.)

Applied (A): This is the highest level in the hierarchy. It involves *evaluating* or *applying* information; ex., figuring out how it can be used in new or practical situations, synthesizing it into new patterns, differentiating facts from opinions, judging the accuracy and validity of the information and the conclusions reached, and judging or appraising the general usefulness of the information. (Bloom's Application, Synthesis & Evaluation levels are generally comparable to the Applied level.) (Essay questions generally require interpretive or applied-level thinking.)

We can picture the comprehension hierarchy as a *pyramid*, with the base representing the L level and the peak representing the A level. We have to start at the bottom to get to the top; that is, we have to start by being able to *recall (remember)* the information before we can think about it and apply it.

Students can apply this concept by developing their own pre-tests. As a standard

assignment in both my College Reading and my Learning Strategies classes, students develop (and answer) their own 25-question pre-tests three times throughout the semester. Ten questions can be L-level, and 15 questions have to represent the I and A levels. This assignment is to be completed in reference to a different course in which students are enrolled (ex., anthropology, biology, criminology, geography).

The handout I provide students shows verbs that are common in exams, and the level of comprehension that they are LIKELY to represent. (The actual level depends on what the author or lecturer said; e.g., if the author drew a conclusion, then remembering that conclusion is an example of the L level. If the reader drew the conclusion by him/herself, then it's an example of the I level. If the reader evaluates the conclusion that the author stated, then it's an example of the A level.)

¶ Literal verbs: List, Identify, Define, Match, Choose, Select, Identify, Describe, Discuss, Summarize

¶ Interpretive verbs: Compare, Contrast, Explain, Exemplify, Illustrate, Relate, Show

¶ Applied verbs: Apply, Evaluate, Justify, Prove, Create/ Formulate, Judge, Criticize, Defend, Develop, Comment

EXAMPLES: Below are examples of test questions written at each of the 3 levels of comprehension. The questions are based on part of a chapter of introductory psychology that dealt with intellectual development in children.

¶ Literal questions: (1) What are the 4 stages of intellectual growth? (2) Identify the ages that correspond to each level. (3) Discuss the characteristics of each stage. (4) Define *accommodation* and *assimilation*.

¶ Interpretive questions: (1) Compare & contrast the sensorimotor and preoperational stages. (2) Recall a child you watched grow from infancy. Give 2 of your own examples of that child's intellectual development during each stage. (3) Explain intellectual development, as Piaget interpreted it.

¶ Applied questions: (1) Based on Piaget's theory, why would a 6-year-old have trouble learning calculus? (2) Evaluate Piaget's theory. (3) Create a play area for a child at each stage of intellectual development.

Reference

Herber, H. (1970). *Teaching reading in content areas.* *Englewood Cliff, NJ: Prentice-Hall.*

SIMPLICITY IN WRITING

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A simple sentence can be the basis for an essay. Organizationally, it can be a thesis about which more specific simple topic sentences can be written. For content, simple sentences can first be written in a logical order and later be combined into compound, complex, and compound/complex ones to avoid verbatim translation and increase sentence variety.

Organizationally, any simple sentence, like "Making an omelet is easy," can, as a thesis, be the basis for an entire essay. However, to have this thesis statement provide more direction for the writer, it can be made more specific by resorting to sentence expansion: simply add adjectives, adverbs, and phrases to a simple sentence frame. Thus, "Making a vegetable omelet consists of three basic steps" tells the writer exactly how to proceed.

If the object is to write a five-paragraph essay, the task becomes a simple matter of finding three aspects of the above topic and expressing them in simple sentences, which become topic sentences for three body paragraphs. Note that a top-down approach to organization is being used here. However, the simple sentence can also be used in a bottom-up approach where both a general summary (thesis) and its expansion (topic sentences) are extracted out of pre-writing activities. The plan for this essay in simple sentences could be the following:

Making a vegetable omelet consists of three basic steps.
Get the ingredients.
Prepare the ingredients.
Cook the ingredients.

Now that the basic organization is intact, it is time to proceed with content. Again, the simple sentence is the starting point. Before beginning, however, note that since the simple sentence here is being used as a building block for more complex ones. The activity below presupposes not only some practice in sentence combining (using both coordinate and subordinate conjunctions to make one sentence out of two) but also some knowledge of how to vary focus by coordinating or subordinating different clauses.

There are two ways to complete the three body paragraphs, depending on the level of the students. Elementary-level students would write simple sentences in a random order and later combine the related ones for variety. Also, writing simple sentences in the beginning allows students to concentrate on viable ideas rather than grammar. To achieve variety, a simple mathematical formula is sufficient at this level: Do not have two of the same sentence types in a row. If the previous sentence is a coordinate one, this one must be of either simple or subordinate kind.

To illustrate what beginning students should do, let us expand the second topic sentence, "Prepare the ingredients," into a paragraph. (I am not a good cook, but I hope that the steps below will result in an edible dish.) First, write a group of simple sentences in a random order:

Wash the vegetables. Take two eggs. Break the eggs. Cut the vegetables into small pieces. Add salt and pepper. Separate the whites from the yolks. Mix the ingredients together. Put everything in a mixing bowl. Beat the egg whites separately. Get a mixing bowl. Beat the egg whites firm.

Second, combine the related simple sentences in a logical order to form a paragraph:

First, wash the vegetables and cut them into small pieces. While breaking the two eggs, separate the yolks from the whites. Get a mixing bowl. Place the egg whites in it and beat them until they are firm. Now add the vegetable and the egg yolks into the mixing bowl and mix everything together. Last, add salt and pepper.

The more advanced students would already write simple sentences in the paragraph format and later combine some to achieve both variety and appropriate focus. The latter consists of placing the important information in the main clause and the less important in the subordinate one.

This procedure lends itself very well to group activity. The size of the group depends on the desired number of body paragraphs in the essay. First, students, as a group, make the plan in simple sentences and then distribute each student a body paragraph to write. After completing the body of the essay, students get together again to assess each other's work and write a conclusion.

I have focused only on the thesis and body paragraphs; I am leaving the decision of how to complete the introduction and conclusion up to the instructor.

There are several advantages of predicating the entire essay on the simple sentence. First, even beginning students can get down to the business of writing immediately since everyone knows how to write a simple sentence. Second, students have a simple, accessible plan to consult so that they can judge the feasibility of the essay before beginning to write, thus eliminating false starts. Third, this method lends itself readily to pair and group work at all proficiency levels.

AUTHORIZATION STATEMENT

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Title of Paper: Developmental Education: History of Implications

Hunter R. Boylan		9/8/98
(Printed Name)	(Signature)	(Date)
(Printed Name)	(Signature)	(Date)
(Printed Name)	(Signature)	(Date)

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Title of Paper: Learning and Teaching in the 21st Century: Seven Habits of Highly Effective Developmental Educators

(Printed Name)	(Signature)	(Date)
DAVID ARENDALE	DARArendale	9/11/98

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Title of Paper: The Transition From High School to College: Constructing A Frohman Seminar To Improve Academic Performance And Student Retention

(Printed Name)	(Signature)	(Date)
George M. Colton Edd.	George M Colton	9/1/98
[illegible]	[illegible]	9.1.98

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Title of Paper: Learning, Literacy, Writing Labs: Tutors Empowering Students

(Printed Name)	(Signature)	(Date)
James Boswell, Jr.	James Boswell Jr	9-9-98
Kate Dankosky	Kate Dankosky (JB)	9-9-98

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Title of Paper: Learning Styles: The Road to Metacognition

(Printed Name)	(Signature)	(Date)
MaryCatherine Kiliany	MaryCatherine Kiliany	9/14/98

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Title of Paper: SUPPLEMENTAL INSTRUCTION: VARIATIONS ON THE BASIC MODEL

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ANN MCLAREN		9/18/98

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Title of Paper: Helping Students Conquer Math Anxiety

(Printed Name)	(Signature)	(Date)
Rosemarie Caetano	Rosemarie Caetano	8-31-98

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Title of Paper: MATH SI at IUP: A Short and Sweet First Report

(Printed Name)	(Signature)	(Date)
PAUL HRABOVSKY		8/5/98

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Title of Paper: Correlating the LASSI with Developmental Students' Academic Performance

(Printed Name)	(Signature)	(Date)
Sally Lipsky	Sally Lipsky	2-1-99

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Title of Paper: Designing a Peer Tutor Training Program

(Printed Name)	(Signature)	(Date)
Ann McLaren	A McLaren	2/22/99

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To Sally Lipski	From Ann McLaren
Co. LHP	Co. Penn State
Dept. Learning Center	Phone # 814-863-2096
Fax # (724-357-6940	Fax # 814-863-9627

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Title of Paper: Want To Think Like Your Profs (When They're Writing Your Tests)?

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Title of Paper: Simplicity in Writing

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Robert Hellstrom		8/12/98

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